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HELMINTHOLOGICAL ABSTRACTS

incorporating
BIBLIOGRAPHY OF HELMINTHOLOGY
For the Year 1939.



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY
(HELMINTHOLOGY)

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Vol. VIII, Part 5.

432—Acta Japonica Medicinae Tropicalis.

- a. YOKOGAWA, S., KOBAYASI, H. & YOSINO, T., 1939.—“On Pandit's reaction of the serum of elephantiasis to *Microfilaria bancrofti*.” 1 (2), 185-192.
- b. KOBAYASI, H., 1939.—“Supplementary study regarding the organisation of *Microfilaria bancrofti*.” 1 (2), 193-202.
- c. RO, M., 1939.—“On the size and form of normal eggs of the lung fluke (*Paragonimus westermani*).” 1 (2), 203-208.

(432a) Pandit has stated that when sera from cases of elephantiasis are added to blood containing embryos of *Filaria bancrofti* and left for from 1 to 2 hours to a few days, the leucocytes and blood platelets adhere to, immobilize and ultimately destroy the microfilariae. The authors applying this test to 19 cases of elephantiasis found that the adhesion of blood cells to the microfilariae is extremely irregular. They conclude that the reaction is not an immunity reaction specific to elephantiasis nor has it any relation to filaria infection but is (at least in part) dependent on blood grouping. R.T.L.

(432b) Kobayasi has used a modified Giemsa stain for the study of the primordial cell groups of the embryos of *Filaria bancrofti*. He finds that the genital ‘anlage’ has no relationship with the G cells. R.T.L.

(432c) Ro finds from measurements of large numbers of *Paragonimus* eggs from man and dogs that those from human sputum are shorter and wider than those found in the faeces of dogs. R.T.L.

433—Acta de l'Union Internationale Contre le Cancer.

- *a. ONSY, A., 1939.—“Rare tumour formations associated with bilharzial infections.” 4, 299-316.

434—Advisory Leaflet. Department of Agriculture and Stock. Queensland.

- a. ROBERTS, F. H. S., 1939.—“Parasites of poultry.” No. 6, 24 pp.
- b. ROBERTS, F. H. S., 1939.—“The parasitic worms of sheep.” No. 24, 26 pp.

(434a) [This article has been reprinted from the Queensland Agricultural Journal, 1939, 52, 4-26. For abstract see Helm. Abs., Vol. VIII, No. 243a.]

* Original not available for checking or abstracting.

(434b) [This article has been reprinted from the Queensland Agricultural Journal, 1939, 52, 254-279. For abstract see Helm. Abs., Vol. VIII, No. 385b.]

435—África Médica.

- a. COSTA, A., 1939.—“O quisto hidático do pulmão e a vômica curativa.” 5 (10), 201-214.

436—American Journal of Cancer.

- a. BONNE, C. & SANDGROUND, J. H., 1939.—“On the production of gastric tumors, bordering on malignancy, in Javanese monkeys through the agency of *Nochitia nochti*, a parasitic nematode.” 37 (2), 173-185.
- b. BERNSTEIN, F., BIRNBAUM, Z. W. & ACHS, S., 1939.—“Is or is not cancer dependent on age?” 37 (2), 298-311.
- c. DUNNING, W. F. & CURTIS, M. R., 1939.—“Malignancy induced by *Cysticercus fasciolaris*: its independence of the age of the host when infested.” 37 (2), 312-328.

(436a) Bonne & Sandground describe tumours occurring in the stomachs of Javanese monkeys caused by the presence of *Nochitia nochti*, a trichostrongylid nematode. The helminths were always found deep in the tissue of the tumour: they never occurred free in the lumen of the stomach. On the other hand tumours were never found which did not harbour the worm. Tumours were induced experimentally 3 months after the introduction of adult worms into clean monkeys. The tumour is a localised adenopapillomatous growth in the submucosa situated a few centimetres away from the pylorus. There is no evidence that these tumours can become carcinomata.

P.A.C.

(436b) Bernstein, Birnbaum & Achs consider that, contrary to the generally accepted opinion, malignancy in the livers of rats infected with *Cysticercus* depends mainly on the age of the host. The frequency decreases as the age increases, and the authors assume that the severity of the infection decreases similarly. The data are treated statistically.

P.A.C.

(436c) In rats infested with *Cysticercus fasciolaris*, Dunning & Curtis find that the duration of infestation is not dependent upon the age of the host, but that it did become shorter and less variable as the number of cysticerci increased, as did the number of animals developing tumours. Death from cysticercus sarcoma varied directly with the duration and extent of the irritation but did not seem to depend upon age. However, rats infested at the age of one month showed a slightly greater tendency towards the production of malignant tumours than did those infested later in life.

P.A.C.

437—American Journal of Clinical Pathology.

- a. QUEEN, F. B., 1939.—“Diagnosis of trichinosis by the digestion method: additional aid to diagnosis.” 9 (2), 209-218.
- b. MOSS, E. S., 1939.—“Incidence of intestinal parasites: analysis of 2,265 routine, consecutive stool examinations in out-patient dispensaries of the Charity Hospital of Louisiana at New Orleans.” 9 (7), 437-447.

(437a) Queen recommends the use of the digestion method for the diagnosis of trichinosis post-mortem as it is simple and much more accurate

than either the methods of serial sections or press preparations. This method can also be used to examine meat products. From his results he is not yet able to correlate the degree of infestation with the clinical severity of the disease.

P.A.C.

438—American Midland Naturalist.

- a. RANKIN, J. S., 1939.—“Studies on the trematode family Microphallidae Travassos, 1921. III. The genus *Maritrema* Nicoll, 1907, with description of a new species and a new genus, *Maritreminoides*.” 22 (2), 438-451.
- b. GOWER, W. C., 1939.—“Host-parasite catalogue of the helminths of ducks.” 22 (3), 580-628.
- c. STEELMAN, G. M., 1939.—“A new cestode, *Diorchis longibursa*, from the coot.” 22 (3), 637-639.
- d. MACY, R. W., 1939.—“A new trematode, *Acanthatrium oregonense*, (Lecithodendriidae), from bats of the genus *Myotis*.” 22 (3), 640-641.

(438a) Rankin reviews the genus *Maritrema* and emends its diagnosis. Brief descriptions are given of the 11 members of the genus, and a 12th, *M. ovata* n. sp., is added. *M. obstipum*, *M. medium* and *M. nettae* are transferred to *Maritreminoides* n. g. (type *M. nettae*). The new genus is distinguished from all other Microphallidae by the lateral extent of the uterus and the long protrusible cirrus.

A.E.F.

(438b) Gower's catalogue of the helminths of ducks is divided into 2 sections. The first lists the species of parasites with their synonyms, hosts and distribution; the second gives the hosts with their synonyms and the parasites recorded for each. Keys to the families and genera of the helminths concerned are included. The paper concludes with 140 references to the relevant literature.

A.E.F.

(438c) Steelman describes and figures *Diorchis longibursa* n. sp. from *Fulica americana americana*. The length of the hooks and the great relative length of the cirrus pouch differentiate the new species from other members of the genus.

A.E.F.

439—Anales de la Facultad de Medicina de Montevideo.

- *a. SCHROEDER, A. H. & RAMIREZ, F., 1939.—“Dos casos de quiste hidático cerebral con infantilismo.” 24, 649-672.
- *b. SCHROEDER, A. H., 1939.—“Tres nuevos casos de quiste hidático cerebral operados con nuestra técnica.” 24, 681-709.
- *c. SCHROEDER, A. H. & TORRENTS, E., 1939.—“Valor localizador de la electroencefalografía comparativamente con la ventriculografía en el quiste hidático cerebral.” 24, 710-724.

440—Annales d'Anatomie Pathologique.

- a. RICHE, V., GUIBERT, H. L., AUSSILLOUX, J. & DUC, N. D., 1939.—“Échinococcose multiloculaire du foie.” 16 (7), 899-905.

* Original not available for checking or abstracting.

441—Annales de l'École Supérieure de Médecine et de Pharmacie de l'Indochine.

- *a. GALLIARD, H., 1939.—“ Sur la fréquence de la strongyloïdose et de l'ankylostomose au Tonkin.” 3, 108-114.

442—Annales de Médecine et de Pharmacie Coloniales.

- a. VOGEL, E. & RIOU, M., 1939.—“ Les maladies épidémiques, endémiques et sociales dans les colonies françaises pendant l'année 1937.” 37, Supplément, 551 pp.

(442a) On pages 413 to 437 of this report, Vogel & Riou briefly summarize the records of protozoal and helminthic parasitism in the French colonies during the year 1937. The records are taken colony by colony under the following main heads: Intestinal parasitism (pp. 413-425), Bilharziasis (pp. 425-430), and Filariasis (pp. 430-437).

B.G.P.

443—Annales de la Société Belge de Médecine Tropicale.

- a. HADDAD, E., 1939.—“ Biologie systématique et thérapeutique de l'infestation helminthiasique au Kwango.” 19 (4), 539-544.
 b. JADIN, J. & DELPERDANGE, G., 1939.—“ Contribution à l'étude de l'helminthiase et de la parasitologie de l'Equateur.” 19 (4), 547-556.
 c. BERGHE, L. VAN DEN, 1939.—“ La schistosomose humaine dans la province de Stanleyville (Congo belge).” 19 (4), 573-594.

(443a) Haddad gives data for the incidence of helminthiases at the mission station of Lumbi and among the indigenous population. Ascaris infestation, much higher among the latter, yields most readily to preventive measures. Chloroform is a good, cheap remedy against ascaris and hookworm, and is well tolerated by negroes.

B.G.P.

(443b) Jadin & Delperdange list the helminths found in man and in domesticated and wild animals in Equateur (Belgian Congo), during 1937 and 1938.

B.G.P.

(443c) From an expedition to the Stanleyville province and other African territories in 1936, van den Berghe is confirmed in his view that *Schistosoma intercalatum* is merely a variety of *S. haematobium*. The species *S. faradjei* Walkers, based on a supposedly spineless egg, is almost certainly *S. mansoni*, the egg having been viewed with the spine in a median position. *S. mansoni*, carried by *Planorbis adowensis*, is the commonest schistosome in Stanleyville province and is of great and increasing clinical importance. Prophylaxis is little understood by the local authorities.

B.G.P.

444—Annali di Radiologia Diagnostica.

- *a. FUGAZZOLA, F., 1939.—“ Importanza della ricerca radiologica degli ascaridi nella diagnostica di alcune sindromi gastro-enteriche.” 13, 556-584.

* Original not available for checking or abstracting.

445—Annals of Applied Biology.

- a. PETHERBRIDGE, F. R., 1939.—“Sugar beet pests.” [Paper presented at the 1939 Annual General Meeting of the Association of Applied Biologists.] 26 (2), 397-399.
- b. ROEBUCK, A., 1939.—“Pests of the sugar beet crop in the Midlands.” [Paper presented at the 1939 Annual General Meeting of the Association of Applied Biologists.] 26 (2), 399-401.

(445a) In addition to the bean aphid and wireworms, Petherbridge discusses *Heterodera schachtii* as a pest of sugar beet particularly as it occurs in the eastern counties of England. He makes a number of suggestions for suitable crop rotations where the parasite has been found to cause beet sickness, but differentiates between areas where there is a high cyst count and those where the number of cysts in the soil is low. T.G.

(445b) Roebuck deals with a number of insect pests of sugar beet and reports the occurrence of *Heterodera schachtii* on the same host in the Midlands. In one field it occurred on sugar beet, mangolds and swedes. Here sugar beet had been grown only during the previous year but red beet had been frequently grown. In another case it occurred both in a field and a garden on swedes but, when tested, these worms would not attack sugar beet. In a third case it occurred on mangolds and sugar beet but appeared to attack cabbage very feebly. He also records *Anguillulina dipsaci* as attacking the crowns of sugar beets and producing a sort of corky canker. The affection is widespread but owing to the lateness of its appearance in the season it does not produce much loss of crop. T.G.

446—Archiv für Ophthalmologie.

- a. MARKOVIĆ, A., 1939.—“Der erste Fall von Philophthalmose beim Menschen.” 140 (3), 515-526.

(446a) Marković records the presence of *Philophthalmus lacrymosus* from the conjunctiva of a man near Belgrade. This trematode has previously been recorded from species of *Larus* where it produces symptoms of acute trachoma. Similar symptoms in the patient disappeared with the removal of the parasite. P.A.C.

447—Archiv für Schiffs- und Tropen-Hygiene.

- a. BUSSE-GRAWITZ, P., 1939.—“Beiträge zur Therapie einiger Darmparasiten.” 43 (10), 463-465.

(447a) Busse-Grawitz gives brief notes on the treatment of intestinal parasites, based on several thousand cases treated in the Argentine over a period of 13 years. Prontosil (4'-sulphamido-2:4-diaminoazobenzene), 6 tablets daily for 10 days, eliminated *Hymenolepis nana* in 50% of cases. Against *Trichuris*, “Paroxil” was nearly always successful, but the high dosage (0.5 g. 3 times daily for 3 days, repeated twice after 14-day intervals) was not always tolerated. In treating *Taenia* (which is stated to be very rare in the Argentine) the importance of the duodenal sound for administration of male fern extract is stressed. “Helmofix” is reported to be unsatisfactory against *Enterobius*. A.E.F.

448—Archiv für Wissenschaftliche und Praktische Tierheilkunde.

- a. ENDRIGKEIT, A., 1939.—“Die Parasiten der Pferde in Ostpreussen unter besonderer Berücksichtigung der kleinen Strongyliden.” 75 (1), 1-19.
- b. ENDRIGKEIT, A., 1939.—“Phytotherapeutische Versuche zur Bekämpfung der Magenwurmseuche der Schafe.” 75 (2), 109-123.

(448a) During January March 1938 Endrigkeit examined for helminths 50 horses in East Prussia (chiefly from Königsberg and environs). Strongyles, and particularly the Trichoneminae, were found to be the most important parasites. Brief descriptions are given of the species of strongyles recovered, and a table shows their relative frequency. *Trichonema pseudicatinatum* (found in 82% of horses) was the commonest species. Oxyuris was rare. Of the cestodes, *Anoplocephala magna* was most widespread. A.E.F.

(448b) The fact that parasitism in sheep shows a decrease during the spring has led to the theory that spring plants have some anthelmintic properties. Endrigkeit has therefore carried out feeding experiments to determine whether certain plants were of value against *Haemonchus contortus* and *Ostertagia ostertagi* in sheep. St. John's wort (*Hypericum perforatum*) reduced the egg count by 30% within 14 days. St. John's wort + carrots produced within 48 hours a marked reduction in the egg count. Carrots by themselves showed no definite anthelmintic effect. Artemisia, and artemisia + carrots, also gave negative results. A.E.F.

449—Archives de l'Institut Pasteur d'Algérie.

- a. SERGENT, E., 1939.—“Enquêtes sur l'existence en Algérie des bullins et des planorbes, hôtes intermédiaires de *Schistosoma haematobium*.” 17 (4), 601-603.
- b. PALLARY, P., 1939.—“Prospection des eaux magnésiennes de l'oued Rirh (Sud constantinois) au point de vue de l'existence des bullins et des planorbes.” 17 (4), 604-612.

(449a) Sergent merely introduces the following paper by Pallary.

B.G.P.

(449b) Pallary has confirmed earlier investigations (Pallary, 1909; Gauthier, 1932) which showed that neither *Bulinus* nor *Planorbis* are to be found in the basin of the Oued Rirh in north-eastern Algeria, though *Bulinus* and schistosomiasis are found in adjacent parts of Tunisia. He shows that the magnesium content of the waters, 110-3,460 mg. per litre, is too high for pulmonate molluscs. B.G.P.

450—Archives de l'Institut Prophylactique.

- a. VERNES, A., 1939.—“Traitement du ver solitaire.” 11 (1), 73-74.

451—Archives Internationales de Médecine Expérimentale.

- a. BRUYNOGHE, G., 1939.—“Recherches sur les propriétés antigéniques de microfilaïres de *Dirofilaria immitis*.” 14 (1), 29-39.

(451a) [This paper appeared also in Ann. Soc. Belge Méd. Trop., 1939, 19, 335-353. See Helm. Abs., Vol. VIII, No. 268b.]

452—Archives de la Société des Sciences Médicales et Biologiques de Montpellier.

- *a. EUZIERE, J., HARANT, H. & POULOT, 1939.—“ Sur un nouveau cas de taeniasis à *Hymenolepis nana* (note préliminaire).” 20, 315-317.

453—Archivio ed Atti della Società Italiana di Chirurgia.

- *a. PANDOLFINI, R., 1939.—“ Su di una rara localizzazione primitiva muscolare di una cisti da echinococco della parete addominale.” 45, 919-929.

454—Archivio Italiano delle Malattie dell'Apparato Digerente.

- *a. ALLODI, A. & BANCHE, M., 1939.—“ L'impiego dei preparati acridinici nelle parassitosi intestinali (con particolare riferimento alla loro azione tenifuga).” 8, 413-414.
 *b. BUSINCO, A., 1939.—“ Le cisti da echinococco extraepatiche del tubo digerente, dei tessuti contigui e delle ghiandole annesse.” 8, 483-490.
 *c. GAMBERINI, C., 1939.—“ Cisti da echinococco del pancreas.” 8, 490-496.

455—Archivio Italiano di Medicina Sperimentale.

- *a. GAETANI, G. F. DE, 1939.—“ La intradermoreazione di Casoni. Rassegna sintetica.” 4, 455-467.
 *b. GAETANI, G. F. DE, 1939.—“ I fenomeni anafilattici da elminti. Rassegna sintetica.” 4, 891-926.

456—Archivio Italiano di Scienze Mediche Coloniali e di Parassitologia.

- a. GIAQUINTO MIRA, M., 1939.—“ Presenza del *Simulium damnosum* Theobald in varie località del territorio del Galla e Sidamo e possibile esistenza di focolai di oncocercosi tra le popolazioni indigene di alcune regioni dell'A.O.I.” 20 (12), 657-662.

(456a) Giaquinto Mira identified *Simulium damnosum* in a collection of haematophagous insects made in Ethiopia from 1936 to 1939 and suggests that *Onchocerca volvulus* may be present amongst the indigenous population in certain foci and that investigations into such a possibility would be advisable.
 J.J.C.B.

457—Archivio Italiano di Urologia.

- *a. COCCO, G., 1939.—“ Aspetti radiologici della cisti da echinococco del rene.” 16, 238-267.

458—Archivos Argentinos de Pediatría.

- *a. SEGERS, A., RUSSO, A. & DIAZ, M. E., 1939.—“ Secuelas cavitarias de pulmón por hidatidosis.” 10, 23-43.

459—Archivos de Medicina Interna.

- *a. LOPEZ ALBO, W., 1939.—“ Un caso de cisticercosis meníngea basilar diagnosticada en vida; eosinofílorraquia, aglucorraquia y fijación del complemento.” 5, 191-207.

* Original not available for checking or abstracting.

460—Archivos, Uruguayos de Medicina, Cirugía y Especialidades.

- a. LARGHERO-YBARZ, P., 1939.—“Patogenia de la hidatidosis bi-epifisaria de las articulaciones.” 15 (6), 545-554.

461—Arquivos de Cirurgia Clínica e Experimental.

- *a. LUZ, F., 1939.—“Bancroftose e cirurgia.” 3, 189-201.

462—Arquivos de Higiene e Saude Pública.

- a. GALVÃO, A. L. & AMARAL, A. D. F. DO, 1939.—“Dermatite linear serpiginosa das praias do litoral paulista.” 4 (7), 75-84.

(462a) Galvão & Amaral have shown experimentally that *Ancylostoma braziliense* is the agent responsible for creeping eruption on the São Paulo coast. Both *A. braziliense* and *A. caninum* occur locally in dogs. Posters at bathing-beaches and hotels, and other forms of propaganda are suggested.

B.G.P.

463—Arquivos do Instituto Biológico.

- a. PEREIRA, C. & CUOCOLO, R., 1939.—“A propósito de *Postharmostomum commutatum* (Diesing, 1858).” 10, 73-86. [English summary pp. 84-85.]
 b. VAZ, Z., 1939.—“Redescrição e novos hospedadores de *Capillaria perforans* Kotlán et Orosz, 1931; nematoide patogenico para aves domesticas.” 10, 87-92. [English summary p. 92.]

(463a) *Postharmostomum commutatum* occurs in the domestic fowl in São Paulo (Brazil). Its morphology is described in detail. Five species are regarded as synonyms of *P. commutatum*, viz., *P. gallinum*, *P. armamense*, *P. horizawai*, *P. hawcuiense* and *P. fleuryi*.

R.T.L.

(463b) *Capillaria perforans* is recorded as causing an outbreak of capillariasis in a flock of guinea-fowls in São Paulo, Brazil. The species is redescribed and differentiated from *C. contorta*.

R.T.L.

464—Arquivos do Instituto Penido Burnier.

- *a. PENIDO BURNIER, J., 1939.—“Cisticercose ocular.” 5, 140-163.

465—Atti della Società Italiana di Ostetricia e Ginecologia.

- *a. TANCHIS, B., 1939.—“Taglio cesareo per cisti di echinococco occludente lo scavo.” 35, 581-582.

466—Bios.

- *a. VAN CLEAVE, H. J., 1939.—“Animals in their relation to disease.” 10, 42-47.

* Original not available for checking or abstracting.

467—Boletín del Instituto de Clínica Quirúrgica.

- a. IVANISSEVICH, O., 1939.—“Tratamiento de los quistes hidatídicos del pulmón.” 15 (128), 497-609.
- b. CORREA ITURRASPE, M., 1939.—“Quistes hidatídicos del pulmón. Membrana encarcelada.” 15 (128), 643-697.
- c. ALONSO, L. M., 1939.—“Introducción al estudio de la equinocosis. (Biología y patología general).” 15 (129), 745-886.

468—Boletín del Instituto Internacional Americano de Protección a la Infancia.

- *a. ESCARDÓ y ANAYA, V., 1939.—“El parasitismo en las instituciones de asistencia social. Formas de evitarlo.” 13, 464-470.

469—Boletín Sanitario del Departamento Nacional de Higiene. Buenos Aires.

- a. ANON, 1939.—“Índice de coprología verminosa en el Departamento de Garay. Resultados obtenidos por la Comisión Sanitaria enviada por la Dirección General de Higiene.” 3 (9), 584-622.

470—Boletín de la Sociedad Chilena de Obstetricia y Ginecología.

- *a. GALÁN, G., 1939.—“A propósito de dos observaciones de hidatidosis pelviperitoneal.” 5, 7-16.

471—Boletines de la Sociedad de Cirugía de Rosario.

- *a. BOVERI, J. L., 1939.—“Apendicitis aguda por *Temia saginata*.” 6, 325-336.
- *b. GOÑI MORENO, I., 1939.—“Consideraciones sobre el tratamiento quirúrgico de los quistes hidatídicos del pulmón.” 6, 403-413.
- *c. CHRISTMANN, F. E., 1939.—“Quiste hidático del mediastino posterior (operación curación).” 6, 417-429.

472—Boletines y Trabajos. Academia Argentina de Cirugía.

- *a. GOÑI MORENO, I., 1939.—“Pneumotórax hidatídico. Dos observaciones.” 23, 1241-1260.
- *b. CALCAGNO, B., 1939.—“Hidatidosis tóraco-abdominal múltiple.” 23, 1260-1268.

473—Boletines y Trabajos de la Sociedad de Cirugía de Buenos Aires.

- a. IVANISSEVICH, O. & RIVAS, C. I., 1939.—“Técnica precisa para el tratamiento de los quistes hidatídicos del pulmón por el método de Lamas y Mondino.” 23 (24), 942-951.

474—Bollettino della R. Stazione di Patologia Vegetale di Roma.

- a. BIRAGHI, A., 1939.—“Una grave moria di piantine di cereali prodotta da un nematode ad azione secondaria.” Nuova Serie, 19, 473-487.

* Original not available for checking or abstracting.

(474a) Biraghi describes a diseased condition in seedlings of cereals, oats, wheat and barley, rather closely resembling "tulip root" in oats, in which, however, the stem eelworm, *Anguillulina dipsaci*, did not occur but the plant tissues harboured considerable numbers of the cephalob nematode, *Panagrolaimus rigidus*. The author's final conclusion is that these nematodes are not primary parasites but are secondary invaders of the tissues already weakened possibly by some other parasitic agent or by some physiological defect due to soil conditions. T.G.

475—Botany and Zoology.

- a. SYOGAKI, Y., 1939.—"On the morphological variation of digestive organs in Japanese trematodes." 7 (5), 861-867. [In Japanese.]

476—Brasil-Medico.

- a. MOLLICA, J., 1939.—"Epilepsia; estudo e contribuição pathogenica; epilepsias parasitarias." 53 (40), 936-943.

(476a) As the toxic products of intestinal helminths may act on the nervous tissues of a host, producing epilepsy, Mollica suggests that a vermifuge should be administered to epileptics as a routine measure. P.A.C.

477—Brompton Hospital Reports.

- a. PUNCH, A. L., 1939.—"An hydatid cyst of the lung removed by lobectomy." 8, 150-152.

478—Budapesti Orvosi Ujság.

- *a. CSILLAG, F., 1939.—[Cysticercus subretinalis and cysticercosis simulating symptoms of tumour of the brain.] 37, 863-865.

479—Bulletin of the Department of Agriculture, State of California.

- a. HOFFMAN, H. A., 1939.—"A highly fatal disease of horses. Case studies." 28 (4), 284-287.

(479a) The disease of horses reported by Hoffman is rapid in onset and highly fatal. The symptoms are described and the treatment given recorded. All attempts to isolate a causative organism failed as did experimental infection of laboratory animals. Helminths were present in large numbers, especially *Strongylus equinus*, *S. vulgaris* and cylicostome species. J.W.G.L.

480—Bulletin. Kansas Agricultural Experiment Station.

- a. BUSHNELL, L. D. & TWIEHAUS, M. J., 1939.—"Poultry diseases, their prevention and control." No. 284, 125 pp. [Revision of Bulletin No. 247.]

481—Bulletins et Memoires de la Société d'Électro-Radiologie Médicale de France.

- *a. LEBON, CURTILLET, E. & POROT, 1939.—"Un cas d'échinococcose vertébro-costale." 27, 496-498.

* Original not available for checking or abstracting.

482—Bulletin Mensuel. Société de Médecine Militaire Française.

- *a. ADVIER, 1939.—“ Le dépistage des affections intestinales d'origine parasitaire chez les indigènes des troupes coloniales stationnées dans la métropole. (Rapport préliminaire).” 33, 393-404.

483—Bulletin. Ministry of Agriculture and Fisheries. London.

- a. HODSON, W. E. H., 1939.—“ Narcissus pests.” No. 51, 2nd edit., 44 pp.

(483a) Hodson provides practical information on the animal pests of narcissi grown commercially for flower or bulb production. Amongst the parasites dealt with is the bulb eelworm, *Anguillulina dipsaci*. Symptoms of attack in the bulb and in the foliage are fully described, its spread in the field and the depredations caused to bulbs in store are dealt with. Methods of control in the field are discussed and there is a detailed account of the technique of hot-water treatment. Two other nematode parasites of narcissi are briefly dealt with, namely, *Aphelenchoides hodsoni*, which affects the bulbs and leaves of certain varieties, and *Anguillulina pratensis*, which has been found capable of damaging the roots of narcissi. T.G.

484—Bulletin du Musée Royal d'Histoire Naturelle de Belgique.

- a. CONINCK, L. A. P. DE, 1939.—“ Les nématodes libres de la grotte de Han (Han-sur-Lesse, Belgique). Note de biospéléologie.” 15 (20), 1-40.

(484a) Of the 22 species of nematodes so far identified from the collections from these caves, 10 are new to the Belgian fauna. All the species are described in detail and good figures are given, in some cases of immature forms. Some remarks on the ecological groups and distribution data are added. *Hoplolaimus* sp. de Coninck, 1930 is considered synonymous with *Procriconema thienemanni* (W. Schneider, 1925); also *Dorylaimus yucatanensis* B. G. Chitwood, 1938 with *Dorylaimus granuliferus* Cobb, 1893. N.G.S.

485—Bulletin of the Ophthalmological Society of Egypt.

- a. KHALIL, M., 1939.—“ Eye lesions due to Onchocerca infection in Egypt.” 32, 1-9.

(485a) It is pointed out that the case of *Onchocerca* reported as “ filaria in the macula ” by Barrada in 1935 and that described by Wilson, 1934, as “ onchocerciasis of the macula ” which appear in the literature as two separate cases are based on the same case. The patient came from Belbeis and had never left Egypt. R.T.L.

486—Bulletin de la Société Française de Dermatologie et de Syphiligraphie.

- a. CHANTRIOT, P., 1939.—“ En marge d'une iconographie des helminthides : la pathologie cutanée de l'ankylostomiase.” 46 (7), 1391-1396.

* Original not available for checking or abstracting.

487—Bulletin de la Société Française d'Urologie.

- a. DIAMANTIS, A., 1939.—“ Sur la pathogénie du cancer bilharzien vésical à propos d'un nouveau cas de cancer bilharzien vésical non infecté.” Année 1939, pp. 265-271.

488—Bulletin de la Société de Pathologie Exotique.

- a. LINDBERG, K., 1939.—“ Infestation naturelle de *Mesocyclops vermifer* Lindberg par les embryons du ver de Médine dans un puits du Deccan (Inde).” 32 (8), 816-819.
- b. LINDBERG, K., 1939.—“ Contribution à la question de la présence de poissons cyclopiphages dans les puits du Deccan (Inde).” 32 (9), 880-882.

(488a) In a village in Hyderabad in which guinea-worm cases occur from January until June, Lindberg has observed the seasonal incidence of naturally infested *Mesocyclops vermifer* in the step-wells. Infested cyclops at all stages of the life-cycle, were found chiefly in March and again in May. Only one guinea-worm larva was found in each case, and cyclops from the surface showed a higher incidence (up to 16.45%) than those from the bottom (up to 4%). The stage most heavily parasitized was that of females without ovisacs. B.G.P.

(488b) Lindberg lists 19 species of fish which he took from step-wells in the Deccan, in which the guinea-worm intermediary, *Mesocyclops vermifer*, abounded. [The implication appears to be that these fish, many of them known to feed on cyclops, failed to effect control.] B.G.P.

489—Bulletin de la Société Scientifique de Bretagne.

- a. DUPONT, J., 1939.—“ Occlusion intestinale et perforation d'un diverticule de Meckel par un *Ascaris lumbricoides*.” 15 (3 4), 203-205.

490—Bulletins de la Société Turque de Médecine.

- *a. ERDEN, F., 1939.—[The possibility of diagnosis of hepatic distomiasis by examination of faeces for eggs of *Distoma*.] 5, 328-334.

491—Bulletin. Technical and Scientific Service (Mycological Section). Ministry of Agriculture, Egypt.

- a. FIKRY, A., 1939.—“ Nematode disease of stone-fruits.” No. 217, 9 pp.

(491a) The root-knot nematode, *Heterodera marioni*, is a serious pest of stone fruit trees in Egypt, and Fikry gives an account of its occurrence there on the roots of peach, apricot and plum trees. He has tested various rootstocks for their susceptibility to *H. marioni* and their suitability for the working of peach, apricot and plum scions. He concludes that the most practicable methods for controlling the disease in Egypt are the cultivation of peach worked on *Prunus davidiana*, plum on Mariana plum, and apricot on Beladi apricot, as these three rootstocks are all immune, or practically so, to attack from *H. marioni*. T.G.

* Original not available for checking or abstracting.

492—Bulletin. Virginia Agricultural Experiment Station.

- a. JOHNSON, E. P., 1939.—“A method of raising turkeys in confinement to prevent parasitic diseases.” No. 323, 16 pp.

(492a) Johnson describes a method of rearing turkeys in confinement whereby the flocks are kept free from all diseases transmitted by flies. The work was originally planned as a campaign against a protozoan parasite but the results are equally effective against helminths and certain infectious diseases. The fly-proof shelters are described and figured, together with details of the feeding and the labour involved, which are compared with control flocks. It was noticed that the birds were uncomfortable when the temperature and relative humidity were high but such conditions could be avoided by building the shelters on high ground open to the winds and by attention to ventilation. In the first experiments the confined birds tended to develop a leg deformity named “slipped tendons”, or perosis, but Johnson was able to overcome this by increasing the amount of manganese and cod liver oil in the feed and by cutting down the phosphorus and calcium to a minimum.

P.A.C.

493—California and Western Medicine.

- a. BUTT, E. M. & LAPEYRE, J. L., 1939.—“*Trichina spiralis*: its incidence in necropsy material.” 50 (5), 361-363.
b. GEIGER, J. C. & HOBMAIER, M., 1939.—“Trichinelliasis and carnivorous mammals (bears). Report of seven cases from bear meat.” 51 (4), 249-250.

(493a) Butt & Lapeyre have examined human diaphragms by the digestive method with a view to estimating the incidence of *Trichinella spiralis* in Los Angeles. Over 18% were positive, a quarter of which were heavily infested, i.e., contained more than 100 larvae or cysts. Coloured and Mexican females were more heavily infected than similar males but there was no significant difference between white males and females.

P.A.C.

(493b) Geiger & Hobmaier report on a number of cases of trichinella infection among humans following the eating of improperly cooked bear meat. He suggests that great care should be used in treating or disposing of carcasses, not only of bears but probably also of hunting dogs, wild cats, and rats.

P.A.C.

494—Capita Zoologica.

- a. THORNE, G., 1939.—“A monograph of the nematodes of the superfamily Dorylaimoidea.” 8 (5), 261 pp.

(494a) In this splendid monograph Thorne gives descriptions of all the free-living nematodes, inhabiting soil and fresh water, belonging to the superfamily Dorylaimoidea. After some introductory pages, the worms are dealt with genus by genus under families and subfamilies. The following genera are new to science: in the DORYLAIMINAE, *Labronema* n. g. and *Discolaimium* n. g.; in the TYLENCHOLAIMINAE, *Enchodelus* n. g. and *Discomyctus* n. g.; in the ACTINOLAIMINAE n. subf., *Trachypleura* n. g., *Carcharolaimus* n. g. and *Mylodiscus* n. g.; in the LONGIDORINAE, *Longidorella*

n. g., *Miranema* n. g. and *Utahnema* n. g.; in the BELONDIRIDAE n. fam., *Belondira* n. g., *Oxydirus* n. g., *Swangeria* n. g. and *Nygellus* n. g.; in the LEPTONCHINAE, *Tyleptus* n. g.; and in ALAIMIDAE, *Amphidelus* n. g. and *Adorus* n. g. The work is completed by 32 plates of excellent line drawings, a full list of references and an index. T.G.

495—Chinese Medical Journal.

- a. TANG, C. C., 1939.—“Further investigations on Schistosomiasis japonica in Futsing, Fukien Province.” 56 (5), 462-473.
- b. CHIN, T. H., 1939.—“On helminth parasites of rats in Kweiyang.” 56 (6) 548-558.

(495a) In the faeces of 51 out of 668 inhabitants of the district around Futsing the eggs of *Schistosoma japonicum* were found. This district, situated near the coast, is the endemic area of schistosomiasis in Fukien. An account is given of the distribution, bionomics and seasonal infection rate of *Katayama*. The irrigation ditches of the rice fields afford ideal breeding places for this mollusc. R.T.L.

(495b) In 129 rats examined for helminths, 7 species of nematodes, and two cestode species were found. All are common parasites of rats elsewhere. R.T.L.

496—Circular. Illinois Agricultural Experiment Station.

- *a. ANON, 1939.—“Microscopic diagnosis of parasitism in domestic animals.” No. 496, 123 pp.

497—Circular. Puerto Rico Agricultural Experiment Station.

- *a. VAN VOLKENBERG, H. L., 1939.—“An annotated check list of the parasites of animals in Puerto Rico.” No. 22, 12 pp.

498—Clinica Medica Italiana.

- a. CAPANI, L., 1939.—“Ricerche sulla cosiddetta sensibilizzazione da intra-dermoreazione con liquido idatideo alla Casoni.” 70 (5), 445-451.

(498a) Capani points out that false positives may be obtained following the repeated use of the Casoni reaction for the identification of hydatid. P.A.C.

499—Clinica Ostetrica e Ginecologica.

- a. CARRETTI, C., 1939.—“Ascariidiosi in gravidanza.” 41 (11), 547-558.

500—Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS.

- a. WEIZMANN, W. R., 1939.—“Entwicklung und Reduktion der weiblichen Geschlechtsorgane beim Bandwurm des Schweines.” 22 (9), 653-656.

(500a) In Weizmann's view, the female reproductive organ in each segment of the “pig tapeworm” [*Taenia solium*, presumably] is the uterus;

* Original not available for checking or abstracting.

the organ hitherto called "ovary" is really, like the yolk glands, a yolk-producing organ, and even some of the uterine cells also metamorphose into yolk cells.

B.G.P.

501—Contributions from the Biological Laboratories of Knox College.

- *a. WALTON, A. C., 1939.—"The Cestoda as parasites of Amphibia. Parasite list, host list, bibliography." No. 64, 31 pp.

502—Cornell Veterinarian.

- a. JOHNSON, S. A., 1939.—"Disease problems in goat dairies." 29 (2), 166-172.

(502a) On the suggestion of D. W. Baker goats were given by syringe about 3 c.c. of a 3% to 5% solution of copper sulphate just before the administration of a mixture of 11 c.c. of tetrachlorethylene and 11 c.c. of mineral oil given by a dose syringe. The animals were left quiet and not starved. One animal with 40,500 eggs in 2 g. faeces sample showed only 116 eggs 2 weeks after treatment. A month later the count had risen to 2,400 eggs and after a second treatment the count fell to 12.

R.T.L.

503—Deutsche Tierärztliche Wochenschrift.

- a. SCHOOP, G. & SCHADE, M., 1939.—"Der Fuchs als Verbreiter der Trichinosis." 47 (35), 553-561.
b. GRUBER, G. B., 1939.—"Zur Frage nach der Natur des Echinokokkus." 47 (44), 665-669; (45), 680-683.

(503a) Schoop & Schade insist on the importance of wild foxes in the spread of trichinosis in Germany: they found an incidence of 4.4% in Hesse, for example. Trichina-inspection has effectively broken the pig-rat-pig cycle, but now it is necessary to ensure the proper disposal of fox carcasses. In the fox the larval capsules are spherical or slightly oval.

B.G.P.

(503b) Gruber discusses the question whether cystic and alveolar hydatid are one and the same species. He recounts the arguments put forward by Posselt (in his day the champion of the dualistic school) and opposed by Dévé, but reaches no definite conclusion.

B.G.P.

504—Deutsche Zeitschrift für Chirurgie.

- *a. KAWAI, N., 1939.—"Ein erfolgreich operierter Fall von Lungenegel-erkrankung des Gehirns (Paragonimiasis s. Distomiasis cerebri)." 252, 705-710.

505—Deutsches Archiv für Klinische Medizin.

- a. HENI, F., 1939.—"Über den Wert der biologischen Reaktionen beim *Echinococcus alveolaris*." 184 (4), 458-465.

(505a) Heni discusses the value of serological reactions in the diagnosis of *Echinococcus alveolaris*. Fixation of complement, though useful, is not

* Original not available for checking or abstracting.

specific, neither is the immediate reaction in the Casoni test. But the occurrence of a delayed reaction establishes the presence of the parasite beyond doubt when the antigen is prepared from *E. alveolaris*. There are, however, difficulties at the present time in the manufacture and preservation of such antigens. P.A.C.

506—East African Medical Journal.

- a. HAWKING, F., 1939.—[Onchocerciasis in Tanganyika.] [Correspondence.] 16 (4), 155-156.

(506a) In 700 natives of the southern highlands of Tanganyika Territory, including 230 whose skin was subjected to microscopical examination, there were 7 cases of onchocerciasis: 3 were in the Tukuyu region, 3 in the Njombe region and 1 from Mufindi. Two of the cases had eye lesions and only one had subcutaneous nodules. Simulium were present in large numbers around a waterfall at Njombe. R.T.L.

507—East Sussex Farmer.

- a. HUDSON, J. P., 1939.—“Warm water treatment of plants.” 6 (3), 85-91.

(507a) Hudson briefly describes the symptoms of disease caused by the chrysanthemum eelworm, and gives practical instructions for the treatment of chrysanthemum stools in hot water at 110 F. for 20 to 30 minutes. This is done prior to their being planted up in clean soil for the production of cuttings. The author claims that hot-water treatment is proving a valuable aid to successful chrysanthemum culture in Sussex. T.G.

508—Finska Läkaresällskapets Handlingar.

- a. HERNBERG, C. A., 1939.—“Den anti-anemiska factorn i magsaften hos patienter med pernicios botriocephalusanemi. II. Försök med Lasch' biokemiska metod.” 82 (2), published in *Nordisk Medicin*, 1 (6), 374-376.
b. TÖTTERMAN, G. & KIRK, E., 1939.—“Om innehållet av lipoider i *Bothriocephalus latus*.” 82 (9), published in *Nordisk Medicin*, 3 (35), 2715-2716. [German summary p. 2716.]

(508b) In a chemical examination of *Bothriocephalus latus*, Tötterman & Kirk find there is about 1.5% lipid content. The bulk of it appears as cephalin and they confirm the results of Faust and Tallquist on the phosphatid and cholesterin content. P.A.C.

509—Folia Anatomica Universitatis Conimbrigensis.

- a. BRITES, G., 1939.—“Cicatrice complexe de kyste hydatique du foie.” 14 (5), 1-3.

(509a) Brites describes the histological structure of scar tissue in the liver due to the presence of a calcified hydatid cyst. The fibrous tissue capsule was extensive and the surrounding tissue contained groups of fibrocytes. There was an accumulation of lymphocytes. The cavity of the cyst had been filled with a cheesy exudate. The whole tissue was heavily calcified. P.A.C.

510—Folia Zoologica et Hydrobiologica.

- a. ALLGÉN, C. A., 1939.—“Über einen Fall von ‘Cannibalismus’ in der Gattung *Bathylaïmus* Cobb.” 9 (2), 316-318.
- b. ALLGÉN, C. A., 1939.—“Über einen bemerkenswerten Fall von Wundheilung am Schwanz des *Bathylaïmus zostericola* Allgén.” 9 (2), 318-319.
- c. ALLGÉN, C. A., 1939.—“Eine neue Desmoscolecide, *Desmoscolex Strandli*, von der Westküste Norwegens.” 9 (2), 319-321.
- d. ALLGÉN, C. A., 1939.—“Räuberische Ernährungsweise mariner Nematoden, insbesondere der *Halichoanolaimi*.” 9 (2), 321-324.

511—Fortschritte der Therapie.

- a. OELKERS, H. A., 1939.—“Zur Pharmakologie der Anthelminthica.” 15 (9), 485-496.

512—Fragmenta Faunistica Musei Zoologici Polonici.

- a. LUKASIAK, J., 1939.—“Recherches sur la faune helminthologique en Pologne.” 4 (5), 93-106. [French summary p. 106.]

(512a) Łukasiak tabulates the result of the examination for helminths of 88 vertebrates representing 19 species. The animals came principally from the Warsaw district. Of the 41 species of helminths recovered 7 were trematodes, 6 cestodes and 28 nematodes. There was no new species.

A.E.F.

513—Fukuoka Acta Medica.

- a. MIYAZAKI, I., 1939.—“Ein neues Lungendistom *Paragonimus ohirai* n. sp.” 32 (7), 1247-1252. [In Japanese : German summary pp. 70-73.]

(513a) Miyazaki 1939 [see Helm. Abs., Vol. VIII, No. 210b] recently described metacercariae in the crabs *Sesarma* (*Sesarma*) *intermedia* and *S.* (*Holometopus*) *dehaani* as probably those of *Paragonimus westermanni*. The adults were obtained experimentally in dogs, cats and white mice, and on account of differences in the ovary, which is finely branched, and the smaller size of the egg he has created a new species, *P. ohirai*. The cysts of the cercaria are oval and smaller and the cyst wall is very thick. Moreover, the metacercaria is smaller with a short mouth stylet as compared with these structures in *P. westermanni*.

R.T.L.

514—Gaceta Medica de Caracas.

- *a. VELEZ BOZA, F., 1939.—“El *Dipylidium caninum* en Venezuela.” 46, 368-369.
- *b. JAFFÉ, R., 1939.—“Comunicaciones sobre la bilharziosis pulmonar.” 46, 390-393.

515—Gazzetta Internazionale di Medicina e Chirurgia.

- *a. LIBERTI, V., 1939.—“Colecistite e cisti d'echinococco del letto colecistico suppurata.” 49, 339-345.

* Original not available for checking or abstracting.

516—Geneeskundig Tijdschrift voor Nederlandsch-Indië.

- a. SNIJDERS, E. P., 1939.—“Een merkwaardige leverpatiënte.” 79 (39), 2485-2489.
- b. ESSED, W. F. R., 1939.—“Parasitologische diagnostiek voor den medicus-practicus in Nederlandsch-Indië. Hoofdstuk XV. De wormeieren en eenige ingewandswormen.” 79 (48), 3061-3071.

(516a) [Hydatosis of the liver.]

(516b) Essed describes and figures the eggs of the principal human helminths and adds brief notes on those worms which occur in the intestine.

B.G.P.

517—Giornale Medico dell'Alto Adige.

- *a. BARBIERI, A., 1939.—“Contributo della radiologia nello studio delle occlusioni intestinali da ascaridi.” 11, 241-259.

518—Giornale Veneto di Scienze Mediche.

- *a. NERI, V., 1939.—“Echinococcosi pericardica.” 13, 844-851.

519—Haematologica.

- a. BELUFFI, E. L., 1939.—“Sull'eosinofilia locale dell'appendice infiammata.” 20 (8), 761-772.

520—Hospital. Rio de Janeiro.

- a. ARATA, P. & TEY, A., 1939.—“Contribución a la divulgación del conocimiento de la existencia en nuestro medio de la distomatosis hepática humana; su diagnóstico.” 15, 1195-1199.

521—Igiene Moderna.

- a. VIRDIS, F. & LELLIS, V. DE, 1939.—“Anchilostomiasi ed elmintiasi in provincia di Vercelli.” 32 (7), 323-337.

522—Indian Journal of Veterinary Science and Animal Husbandry.

- a. CHAND, K., 1939.—“The effect of certain drugs and mineral deficiencies on helminthiasis of ruminants.” 9 (3), 267-278.
- b. SRIVASTAVA, H. D., 1939.—“The important helminth parasites of horses—their treatment and control.” 9 (3), 309-322.
- c. CHATTERJI, R. C., 1939.—“Report on two unrecorded nematode parasites from domesticated animals of India or Burma.” 9 (3), 323-332.
- d. MUDALIAR, S. V., 1939.—“*Cotugnia brotugerys* Meggitt, 1915 (from *Gallus domesticus*, Hosur Cattle Farm, Madras).” 9 (3), p. 333.

(522a) A study of various cheap anthelmintics against *Haemonchus* and *Oesophagostomum* in calves and sheep was made by Chand in Lahore. Copper sulphate and kamala together was most satisfactory; CuSO_4 and sodium arsenite was also efficient. He has evidence that the mineral constitution of the diet plays an important part in the resistance of the animals to helminth infestation.

P.A.C.

* Original not available for checking or abstracting.

(522c) The occurrence in India and Burma of *Acuaria hamulosa* in fowls and *Setaria bernardi* in pigs is reported for the first time. Full descriptions with illustrations are given. R.T.L.

(522d) *Cotugnia brotugerys* previously recorded by Meggitt from Burma is now reported from poultry in India. R.T.L.

523—Japanese Journal of Medical Sciences. V. Pathology.

- a. YOKOGAWA, S., 1939.—“Investigations on the mode of infection of *Wuchereria bancrofti*. (Second report).” 4 (3), 197-204.

(523a) Infective larvae of *Filaria bancrofti* obtained from *Culex fatigans* fail to penetrate the skin of mice and men when placed thereon in saline solution and allowed to dry. They can, however, invade the injured skin especially when the superficial layer is removed. In very young animals in which the skin is very delicate the larvae can, however, actively invade the intact skin. The larvae which enter the skin from the bites of infected mosquitoes migrate through the subcutaneous tissues and muscular layers independently as well as via the lymph spaces. R.T.L.

524—Japanese Journal of Veterinary Science.

- a. YOSIKAWA, M. & SOMAZAWA, K., 1939.—“Experimental studies on anthelmintics for the stomach worm (*Haemonchus contortus*) in sheep. II. Experiments on the anthelmintic action of carbon tetrachloride emulsion, and critique on the efficacy of copper sulphate.” 1 (6), 617-632. [In Japanese: English summary pp. 631-632.]

(524a) Carbon tetrachloride has a strong anthelmintic action on *Haemonchus contortus* in sheep when employed as an emulsion containing carbon tetrachloride 50 c.c., 70% alcohol 50 c.c. and medicinal soap 8 g. A single or double treatment with 100 c.c. of 1.5% aqueous solution of copper sulphate does not result in a complete removal of the worms. R.T.L.

525—Journal of Allergy.

- a. MAINZER, J., 1939.—“Bilharzial asthma: a new type of allergic bronchial asthma.” 10 (4), 349-363.

(525a) Mainzer describes 6 cases of bilharzial asthma. It is an allergic type of asthma associated with the generalized type of the disease, reacting to the toxic products of the worms and their eggs. There was a high eosinophilia, and intradermal reactions, using liver extracts of snails, were strongly positive. The asthma disappeared after antimony treatment. P.A.C.

526—Journal of Cellular and Comparative Physiology.

- a. PEASE, D. C. & MARSLAND, D. A., 1939.—“The cleavage of *Ascaris* eggs under exceptionally high pressure.” 14 (3), 407-408.

527—Journal de Chirurgie. Paris.

- a. GOINARD, P. & SALASC, J., 1939.—“Sur les kystes hydatiques des muscles volontaires (à l'exception des kystes post-opératoires).” 54 (3), 320-331.

528—Journal of the Department of Agriculture of Victoria.

- a. WARDLE, R. N., 1939.—"Hydatid disease of animals and man. Its relation to private slaughter houses and farm killing of stock." 37 (6), 279-280.
- b. FISH, S., 1939.—"Tomato diseases and their control." 37 (8), 378-391.
- c. PULLAR, E. M., 1939.—"The sheep measles parasite." 37 (9), 415-419.

(528b) Fish gives short descriptions of the principal diseases affecting tomatoes in Victoria, Australia, and includes a brief account of the symptoms and damage caused by the root-knot eelworm, *Heterodera marioni*. T.G.

529—Journal of Economic Entomology.

- a. GLASGOW, R. D. & DePORTE, P., 1939.—"Recovery from excreta of the pigeon of viable eggs of the giant thorny-headed worm of swine." 32 (6), p. 882.

(529a) Glasgow & DePorte show that eggs of *Macracanthorhynchus hirudinaceus* may be picked up by pigeons and pass out in the faeces in a viable state. These birds and possibly others also may thus help in spreading the parasite. P.A.C.

530—Journal of the Faculty of Agriculture. Hokkaido Imperial University.

- a. FUJITA, T., 1939.—"On the Nematoda-parasites of the Pacific salmon." 42 (3), 239-266.

(530a) Reviewing the nematodes of Pacific salmon of the genera *Oncorhynchus* and *Salvelinus*, Fujita includes the following new forms: *Contracaecum crassicaudatum*, *C. elongatum*, *C. tridentatum*, *C. unidentatum* and *C. robustum* n. spp. from *Oncorhynchus* spp.; *Metastrongylus oncorhynchi*, *M. kosugii*, *M. amemasu*, *M. salvelini* and *M. laticauda* n. spp., the first and last from *Oncorhynchus* spp. and the rest from *Salvelinus kundscha*; *Cystidicola brevicauda* n. sp. from *Salvelinus malma*; *Philonema kondai* n. sp. from *O. keta*, *P. salvelini* n. sp. from *S. kundscha*, and *P. tenuicauda* n. sp. (host unspecified). B.G.P.

531—Journal of the Florida Medical Association.

- a. BATES, T. H., 1939.—"Surgical conditions caused by intestinal parasites." 26 (3), 137-139.

532—Journal. Indian Medical Association.

- a. SHASTRY, T. S., 1939.—"A case of retro-peritoneal hydatid cyst." 8 (6), 351-352.

533—Journal of the Tennessee Academy of Science.

- a. BYRD, E. E., 1939.—"Studies on the blood flukes of the family Spirorchidae. Part II. Revision of the family and description of new species." 14 (1), 116-161.
- b. HARWOOD, P. D., 1939.—"Notes on Tennessee helminths. IV. North American trematodes of the subfamily Notocotylineae." 14 (3), 332-340; (4), 421-435.

(533a) Byrd reviews the family Spirorchidae, parasitic in turtles. Only one subfamily, Spirorchinae, is recognized. Of the original 17 genera only 8 are considered valid, viz., *Hapalotrema*, *Spirorchis*, *Hapalorhynchus*, *Unicaecum*, *Vasotrema*, *Neospirorchis*, *Amphiorchis* and *Learedius*. The following new species are described and figured: *Spirorchis blandingioides* n. sp., *S. pseudemyae* n. sp., *S. minutum* n. sp., *S. magnitestis* n. sp., *Hapalorhynchus realfooti* n. sp., *H. stunkardi* n. sp., *H. evaginatus* n. sp., *Unicaecum dissimilis* n. sp. and *Vasotrema longitestis* n. sp. Keys are given to the genera and species of Spirorchidae.

A.E.F.

(533b) The North American trematodes belonging to the subfamily Notocotylineae are discussed by Harwood. The genus *Neoparamonostomum* becomes a synonym of *Paramonostomum*; *Hindia*, *Naviformia* and *Kossackia* become synonyms of *Notocotylus*; and *Barkeria* a synonym of *Quinqueserialis*. A new subfamily, Opisthotrematinae, is erected and the following new forms described: *Hofmonostomum himantopodis* n. g., n. sp., *Catatropis pricei* n. sp., *Notocotylus pacifera* n. comb., *N. porzanae* n. sp., *N. regis* n. sp., *N. dafilae* n. sp. and *N. micropalmae* n. sp.

A.E.F.

534—Journal of Tropical Medicine and Hygiene.

- a. LOEWENTHAL, L. J. A., 1939.—“Diseases of the skin in negroes. XV. Diseases caused by animal parasites. The Metazoa: helminths.” 42, 57-60, 99-104, 159-161.

(534a) In a long series of articles on diseases of the skin in negroes, extending back to the previous volume, Loewenthal deals briefly with the following helminthic diseases at the pages shown: schistosomiasis (pp. 57-58), filariases (pp. 58-60, 99-102), dracontiasis (p. 102), ancylostomiasis (p. 102) and creeping eruption (pp. 102-104 & 159). There is a short bibliography of helminthic titles on pp. 160-161.

B.G.P.

535—Journal of Wildlife Management.

- *a. RILEY, W. A., 1939.—“The need for data relative to the occurrence of hydatids and of *Echinococcus granulosus* in wildlife.” 3 (3), 255-257.

536—Jugoslovenski Veterinarski Glasnik.

- *a. WINTERHALTER, M., 1939.—“Razudbeni nalazi kod uginulih konja razudjenih u toku godina 1928-1938 u Zavodu za patološku anatomiju Veterinarskog fakulteta u Zagrebu.” 19, 169-174.
- *b. WINTERHALTER, M., 1939.—“Razudbeni nalazi kod uginulih goveda razudjenih u Zavodu za patološku anatomiju Veterinarskog fakulteta u Zagrebu u toku 1928-1938 god.” 19, 357-360.
- *c. WINTERHALTER, M., 1939.—“Razudbeni nalazi kod uginulih svinja razudjenih u toku 1928-1938 godine u Zavodu za patološku anatomiju Veterinarskog fakulteta u Zagrebu.” 19, 525-527.

(536a) [Results of autopsies of horses made during 1928-1938 at the Institute for Pathological Anatomy of the Veterinary College at Zagreb (Yugoslavia).]

* Original not available for checking or abstracting.

(536b) [Results of autopsies of cattle made during 1928-1938 at the Institute for Pathological Anatomy of the Veterinary College at Zagreb (Yugoslavia).]

(536c) [Results of autopsies of swine made during 1928-1938 at the Institute for Pathological Anatomy of the Veterinary College at Zagreb (Yugoslavia).]

537—Keizyô Journal of Medicine.

- a. PARK, J. T., 1939.—“Trematodes of mammals and aves from Tyôsen. III. A new trematode of the family Plagiorchiidae Ward, 1917, *Plagiorchis magnacotylus* sp. nov.” 10 (2), 43-45.
- b. PARK, J. T., 1939.—“A new amphibian trematode, *Mesocoelium minutum* sp. nov. (Dicrocoeliidae), from Japan.” 10 (2), 46-51.
- c. PARK, J. T., 1939.—“Trematodes of fishes from Tyôsen. III. Some new trematodes of the family Allocreadiidae Stossich, 1904 and the genus *Macrolecithus* Hasegawa and Ôzaki, 1926.” 10 (2), 52-62.
- d. PARK, J. T., 1939.—“Trematodes of fishes from Tyôsen. IV. A new digenetic trematode parasite, *Bucephalopsis cybii* sp. nov. (Bucephalidae Poche, 1907).” 10 (2), 63-65.

(537a) *Plagiorchis magnacotylus* n. sp. is described from the bats *Eptesicus velox* and *Rhinolophus ferrum-equinum*. R.T.L.

(537b) *Mesocoelium minutum* n. sp., hundreds of which were collected from 25 toads, is recorded from *Bufo vulgaris japonicus*. A tabular statement differentiates the 9 species of *Mesocoelium* now known. R.T.L.

(537c) Of 5 species collected in North Tyôsen (Korea) from *Acanthogobius* h. 2a, 2 are described as new, viz., *Coitocaecum acanthogobium* and *C. koreanum*. A key is given to the 13 known species of *Coitocaecum*. The systematic position of *Macrolecithus* is discussed and *M. phoxinus* and *M. elongatus* n. spp. recorded from *Phoxinus lagowskii*. *Lepocreadioides orientalis* n. sp. is described from the flatfish *Arcliscus joyneri*. R.T.L.

(537d) *Bucephalopsis cybii* n. sp. is described from *Cybium coreanum* and *Acanthogobium hasta* collected in Simmi Island off North Tyôsen. R.T.L.

538—Khirurgiya.

- *a. SAVCHENKO, F. M., 1939.—[Pulmonary echinococcosis.] No. 1, 104-109.
- *b. DANILOV, I. V., 1939.—[Removal of the entire hepatic lobe for alveolar echinococcosis.] No. 4, 63-65.
- *c. GOLDGAMMER, K. K., 1939.—[Echinococcosis in northern Ossetia.] No. 12, 109-111.
- *d. DANILOV, I. V. & DANILOVA, I. V., 1939.—[Invasion of echinococcus through a wound surface.] No. 12, 117-119.

539—Kieler Meeresforschungen.

- a. SCHULZ, E., 1939.—“Beiträge zur Morphologie und Systematik freilebender mariner Nematoden, I.” 3 (1), 114-121.

(539a) Among the 7 species of free-living marine nematodes described by Schulz are: *Neotheristus cancellatus* n. g., n. sp., *Microlaimus arenicola* n. sp. and *Parachromadora litoralis* n. g., n. sp. A.E.F.

* Original not available for checking or abstracting.

540—Klinicheskaya Meditsina.

- a. VISHEGORODTSEVA, V. D., 1939.—[Gastric secretion of patients with pernicious *Bothriocephalus* anaemia.] 17 (6), 32-36.

541—Liječnički Vjesnik.

- a. MARCHESI, K., 1939.—“Prilog poznavanju oboljenja od *trichocephalus* dispa.” 61 (8), 418-420.

(541a) [Clinical aspects of infestation with *Trichocephalus dispa*.]

542—Medical Annals of the District of Columbia.

- a. MONAT, H. A., 1939.—“Problems confronted in the treatment of oxyuriasis.” 8, 112-113.

(542a) Monat states that if the duration of the life-cycle of pinworm (*Enterobius vermicularis*) and a method of removing the adult pinworms which are lodged in the appendix were known, treatment would not present much difficulty provided other sanitary and therapeutic measures were followed. He describes the treatment of a case, and lists the strict sanitary measures to be followed by infected persons. No patient is to be considered free of infestation in less than 2 months, and the peri-anal region should be swabbed with an NIH swab and examined for pinworm eggs before and after completion of treatment.

M.R.Y.

543—Medical Parasitology and Parasitic Diseases.

- a. RATNER, G. B., 1939.—“La helminthofaune de la population de Zhitomir d'après les données du Laboratoire du Dispensaire Uni.” 8 (2), 247-248. [In Russian.]
- b. GAVRILOV, V. V., 1939.—“Un cas de fasciolosis du foie.” 8 (2), p. 249. [In Russian.]
- c. SKRYABIN, K. I., 1939.—“La tominxose pulmonaire—nouvelle helminthose de l'homme.” 8 (4), 3-8. [In Russian.]
- d. KAMALOV, N. G. & CHEISHVILI, N. D., 1939.—“Traitement de l'ankylostomidose par le tetrachlorure de carbone (carboneum tetrachloratum, CCl₄).” 8 (4), 9-16. [In Russian: French summary p. 16.]
- e. VOTRINA, E. N., 1939.—“Sur le traitement des ankylostomidoses par le tetrachlorure de carbone.” 8 (4), 17-21. [In Russian.]
- f. BEKLEMISHEVA, N. P., 1939.—“Plusieurs cas de strongyloïdose et leur traitement au gentian violet.” 8 (4), 22-30. [In Russian: French summary p. 30.]
- g. KOVALEVA, A. V., 1939.—“La faune des helminthes chez les travailleurs de mines de houille de Chourab.” 8 (5), 96-97. [In Russian.]
- h. EFREMOV, V. V. & SHIKHOBALOVA, N. P., 1939.—“Histopatogénèse de la trichocéphalose expérimentale chez les souris blanches.” 8 (6), 81-88. [In Russian: French summary p. 88.]

(543a) Ratner tabulates the results of examinations for helminths carried out at Zhitomir (Ukraine) during 1920-1929 and 1933-1936. The figures for the two periods are compared. The most important parasites (in order of frequency) were *Ascaris*, *Trichuris* and *Enterobius*. A.E.F.

(543c) Skryabin reviews the systematic position of *Capillaria aerophila* and as a result of his own investigations assigns it to the genus *Thominx* Dujardin, 1845 as *T. aerophilus*. A detailed description of the parasite and an account of its life-history are given. A case is reported from a Moscow hospital where eggs of *T. aerophilus* were recovered from the sputum and faeces of a patient suffering from severe tracheo-bronchitis. A.E.F.

(543f) Beklemisheva gives details of 9 cases of human strongyloidiasis treated at Moscow, 5 of whom had always lived in the district. Treatment with gentian violet gave good results. A.E.F.

(543g) Kovaleva gives the results of the examination of inhabitants of Shurab (Northern Tadzhikistan) for helminths. Of the 420 persons examined 106 were coal miners. The percentages of infestation of all persons examined (with those for miners in parentheses) were; *Ascaris lumbricoides* 12.6 (22.6), *Trichuris trichiura* 2.3 (2.8), *Enterobius vermicularis* 8.3 (11.3), *Hymenolepis nana* 10.9 (13.2), and *Taenia* sp. 1.4 (0.9). A.E.F.

(543h) Young *Trichuris muris* invade the submucosa of the caecum of mice by the mucous glands, forming tunnels from which the posterior part of the worm emerges into the gut lumen. The *Trichuris* does not suck blood. It secretes a proteolytic ferment which digests the surrounding tissues. R.T.L.

544—Medicina. México.

- *a. AGUIRRE PEQUEÑO, E., 1939.—“Enterobiasis (oxiurosis); tratamiento y profilaxis. Homenaje al sabio parasitólogo americano Maurice C. Hall en el aniversario de su muerte, mayo 10. de 1938.” 19, 388-395.
- *b. HENRÍQUEZ, E. & SANCHEZ YLLADES, L., 1939.—“Eosinofilia exagerada en tres casos de triquinosis familiar.” 19, 531-532.

545—Medizinische Welt.

- a. SCHULTZ, W., 1939.—“Trichinose.” 13 (47), 1501-1502.

546—Mémoires de l'Académie de Chirurgie.

- a. BRUN, 1939.—“Note sur la localisation musculaire des kystes hydatiques d'après 23 observations recueillies à l'hôpital Sadiki.” 65, 1199-1205.

547—Mémoires du Musée d'Histoire Naturelle de Belgique.

- a. LERUTH, R., 1939.—“La biologie du domaine souterrain et la faune cavernicole de la Belgique.” No. 87, 506 pp.

(547a) On pp. 140-142 of this monograph on the fauna of subterranean waters and caves of Belgium, Leruth records 11 species of free-living nematodes, none of which is new. A.E.F.

548—Memorias do Instituto Oswaldo Cruz.

- a. CRUZ, W. O., 1939.—“Hemoglobinometria e nível de vida das populações. I. Região do nordeste (Ceará, Rio Grande do Norte, Paraíba e Pernambuco).” 34 (2), 261-282. [English summary pp. 283-292.]

* Original not available for checking or abstracting.

(548a) In this study of the relationship between the economic conditions of some 3,000 persons in the north-east of Brazil and the level of haemoglobin in the blood, Cruz incidentally refers to hookworm anaemia as occurring only in persons on a deficient diet: there was not a single case amongst 1,150 well-to-do persons, whereas the incidence of severe cases was nearly 2% amongst 1,300 persons of low economic standing. B.G.P.

549—Minerva Medica. Torino.

- a. VANNI, V., 1939.—“La calcioterapia delle elmintiasi.” Anno 30, 2 (39), 297-300.
- b. TITONE, M., 1939.—“*Filaria bancrofti*.” Anno 30, 2 (46), 456-459.

550—Mississippi Farm Research.

- *a. LEVECK, H. H., 1939.—“Stomach worms, the most serious menace to southern sheep, yield to treatment with copper sulphate.” 2 (4), p. 8.

551—Mitteilungen der Medizinischen Gesellschaft zu Tokio.

- *a. SIRANE, A., 1939.—“Über die Wirkung des Santonins und des von ihm abgeleiteten Chinols auf die Ascariden.” 53, 718-720.

552—Nederlandsch-Indische Bladen voor Diergeneeskunde en Dierenteelt.

- a. KRANEVELD, F. C., 1939.—“Veterinaire snapshots No. 2. *Protospirura muris* bij den Indischen huisrat” 51 (3/4), p. 245.
- b. KRANEVELD, F. C., 1939.—“Veterinaire snapshots No. 3. *Elaeophora poeli* bij den buffel.” 51 (3/4), p. 247.

(552a) Kraneveld records 91 *Protospirura muris* from a single *Mus rattus griseiventer* in the East Indies. B.G.P.

(552b) Kraneveld reproduces a photograph showing the opened aorta of a buffalo heavily infested with *Elaeophora poeli*. B.G.P.

553—New Orleans Medical and Surgical Journal.

- a. FAUST, E. C., SAWITZ, W. & D'ANTONI, J. S., 1939.—“Scientific session on the clinical significance of newer methods for the diagnosis of intestinal parasites.” 91 (8), 447-451.
- b. HAUSER, G. H., 1939.—“Schistosomiasis. Report of a case.” 92 (5), 265-270.

(553a) Faust, Sawitz & D'Antoni recommend centrifugal flotation with ZnSO_4 solution (sp. gr. 1.180) for concentrating protozoal cysts and helminthic eggs in faeces. After shaking and centrifuging 3 or 4 times with water, the eggs or cysts are floated with ZnSO_4 and looped on to a 3 in. \times 1½ in. slide. Compared with direct smears or centrifuging, this method gave (twice the number of protozoal positives and) 7 to 10 times the number of helminthic positives. For *Enterobius* the NIH swab is recommended. B.G.P.

* Original not available for checking or abstracting.

554—Novi Khirurgicheskii Arkhiv.

- *a. POPOV, E. N., 1939.—[Diagnosis of cysticercosis.] 45, 157-161.

555—Novitates Zoologicae.

- a. ROTHSCCHILD, A. & ROTHSCCHILD, M., 1939.—“Some observations on the growth of *Peringia ulvae* (Pennant) 1777 in the laboratory.” 41, 240-247.
- b. ROTHSCCHILD, M., 1939.—“Large and small flame-cells in a cercaria (Trematoda).” 41, p. 376.

(555a) Laboratory experiments show that *Peringia ulvae* Pennant parasitized by trematode larvae grows more rapidly and attains a greater size than normal uninfected specimens reared under similar conditions. M.R.

(555b) An undescribed allocreadiid cercaria from *Peringia ulvae* Pennant from Plymouth possessed dimorphic flame cells. M.R.

556—Oeuvres de l'Institut Zootechnique et Vétérinaire à Kirov.

- a. ERSHOV, V. S., 1939.—[The characteristics of the species of the genus *Poteriostomum*. *P. skrjabini*—a new parasite of equines.] 3 (12), 49-56. [In Russian.]
- b. ERSHOV, V. S., 1939.—[Feeding troughs for horses and their prophylactic significance in the control of helminth diseases. First communication.] 3 (12), 85-100. [In Russian.]
- *c. ERSHOV, V. S., 1939.—[Strongylosis in horses.] 3 (13), 49-68. [In Russian.]

(556a) Ershov redescribes *Poteriostomum imparidentatum* and *P. ratzii* and compares their chief characteristics in tabular form. He also describes and figures *P. skrjabini* n. sp. The new species differs from *P. imparidentatum* in the shape of the posterior extremity of the female, and in the fact that it lacks the 6 longer leaf-crown elements. It is distinguished from *P. ratzii* by its smaller size, by a shorter oesophagus, and by the shape of the female posterior extremity. A.E.F.

(556b) Ershov has examined (in Russia) 15,600 horses of all kinds and concludes that the high incidence of helminthiasis (particularly ascariasis) is largely due to the absence of feeding troughs or to the fact that those provided are unsuitable. He gives a detailed description, illustrated with diagrams and sketches, of a trough which he recommends for loose boxes. A wooden partition 1 metre high is erected about 30 cm. in front of the trough, so that any hay or corn dropped by the horse while feeding falls behind it, and does not become a source of infection by being eaten after it has become dirty on the floor of the box. A.E.F.

557—Onderstepoort Journal of Veterinary Science and Animal Industry.

- a. ORTLEPP, R. J., 1939.—“Observations on the life-history of *Bunostomum trigonocephalum*, a hookworm of sheep and goats.” 12 (2), 305-318.
- b. MÖNNIG, H. O. & ORTLEPP, R. J., 1939.—“A tetrachlorethylene emulsion as an anthelmintic.” 13 (1), 193-197.

* Original not available for checking or abstracting.

(557a) Ortlepp, from experimental infections in sheep, is able to give a good account of the life-cycle in the host of *Bunostomum trigonocephalum* and by the aid of diagrams to describe the morphology of the larval forms. Eggs hatch in 24 to 36 hours and larvae reach the infective stage 5 to 8 days after hatching. The morphology and biology of the various larvae are practically identical with that of *Gaigeria pachyscelis*. Infection occurs either per os or via the skin. After skin penetration the larvae reach the lungs within 6 days where they remain for about 5 days and pass into the fourth stage. Larvae were next discovered in the intestine, where sex differentiation set in about 4 days later. Maturity was reached 9 to 10 weeks after infection.

J.W.G.L.

(557b) An emulsion of tetrachlorethylene, produced by a special technique described in the paper, is effective against *Haemonchus*, *Nematodirus*, *Trichostrongylus*, *Gaigeria* and *Bunostomum*. It does not cause coughing, choking or giddiness and the safety factor is relatively high. R.T.L.

558—Opthalmos.

- *a. PENIDO BURNIER, J., 1939.—“A cisticercose ocular no Instituto Oftalmico de Campinas.” 1, 197-212.

559—Orvosi Hetilap.

- a. RUZICKSKA, G., 1939.—“Adatok az *Enterobius (Oxyuris) vermicularis* féregnyulványbeli gyakoriságához.” 83 (32), 777-781.

(559a) [The occurrence of *Enterobius vermicularis* in the human appendix.]

560—Peking Natural History Bulletin.

- a. WU, K., 1939.—“*Paragonimus* among leopards and tigers in China.” 13 (4), 231-245.
- b. HU, S. M. K., 1939.—“Studies on the susceptibility of Shanghai mosquitoes to experimental infection with *Wuchereria bancrofti* Cobbold. VII. *Culex vorax* Edwards.” 13 (4), 287-292.
- c. HU, S. M. K., 1939.—“Studies on the susceptibility of Shanghai mosquitoes to experimental infection with *Wuchereria bancrofti* Cobbold. VIII. *Culex bitaeniorhynchus* Giles.” 14 (1), 15-22.
- d. HU, S. M. K., 1939.—“Studies on the susceptibility of Shanghai mosquitoes to experimental infection with *Wuchereria bancrofti* Cobbold. IX. *Anopheles hyrcanus* var. *sinensis* Wiedemann.” 14 (2), 83-97.

(560a) Wu records further cases of paragonimiasis in Chinese leopards and an infection in the tiger from the Fukien province. He does not attach any taxonomic value to the cuticular spines owing to their highly variable character. The eggs are also very variable in size and shape and cannot be said to indicate specific differences.

R.T.L.

(560b) Of 29 *Culex vorax* experimentally fed on a case of *Wuchereria bancrofti* infestation in Shanghai, although 21 were later found to contain infective larvae, in only 6 were all the larvae free from chitinization. Hu points out that this extensive chitinization, involving living as well as dead

* Original not available for checking or abstracting.

larvae, may seriously hinder the transmission of filariasis by this vector. Similar effects have been noted also in *C. fuscans* but not in *C. pipiens* var. *pallens* nor in *C. vagans*. B.G.P.

(560c) Only in one of 33 *Culex bitaeniorhynchus* which became infected from a case of *Filaria bancrofti* did the larvae reach the infective stage. The retardation of development was not due to seasonal influence as the infective stage was attained in *Culex pipiens* and *C. vagans*. R.T.L.

(560d) Hu reared *Anopheles hyrcanus* var. *sinensis* from larvae and then allowed them to feed once on a patient heavily infected with *Wuchereria bancrofti*. Later dissections of these insects showed that 20.9%, carried infective larvae, the average number per mosquito being 3.6. A comparison of the susceptibility of *A. hyrcanus* with *Culex pipiens* var. *pallens* and with *C. vagans* showed that the *Culex* spp. became more heavily infected than *Anopheles*. There was a higher number carrying larvae and a greater number of larvae per mosquito. Hu further examined the larvae carried by mosquitoes collected from a house containing filarial patients. Of the *A. hyrcanus* 4.6% were infected with larvae, while of the *C. pipiens* 17.2% carried filarial larvae. P.A.C.

561—Philippine Journal of Animal Industry.

- a. JESUS, Z. DE & UICHANCO, J. B., 1939.—“The incidence of intestinal parasitism in Philippine horses with special reference to strongylosis.” 6 (6), 435-447.

(561a) Jesus & Uichanco show from faecal examinations of horses in various localities of the Philippines that the incidence of gastro-intestinal helminths is very high. *Parascaris equorum* and *Strongylus* sp. are the most destructive species encountered. There is a negative correlation between the incidence of ascariasis and age of the horses, but no correlation in the case of strongylosis. Control measures are suggested with particular reference to Philippine conditions. J.W.G.L.

562—Polska Gazeta Lekarska.

- *a. PLISKIN, B., 1939.—[Migration of ascarids in children.] 18, p. 641.

563—Poultry Science.

- a. OLSON, C. & LEVINE, P. P., 1939.—“A study of the cellular elements and hemoglobin in the blood of chickens experimentally infected with *Capillaria columbae* (Rud.).” 18 (1), 3-7.
b. WEHR, E. E., 1939.—“Domestic fowls as hosts of the poultry gapeworm.” 18 (6), 432-436.

(563b) Wehr has shown experimentally that the young chicken, guinea-fowl and turkey are important hosts of gapeworm and that the latter bird may harbour a single infection long enough to carry on from one worm season to another. Gapeworm larvae may reach the lungs in pigeons but are unable to develop further. P.A.C.

* Original not available for checking or abstracting.

564—Prensa Médica Argentina.

- a. MINDLIN, S. & URRIBARRI ABBADIE, A., 1939.—“Tratamiento de la oxyuriasis por enemas de éter.” 26 (33), 1603-1608.
- b. SUAREZ MORALES, O., 1939.—“Microfilariosis en Monteagudo (Chuquisaca, Bolivia).” 26 (38), 1838-1841.
- c. URRIBARRI ABBADIE, A., 1939.—“Unicinariosis. Su profilaxis desde la escuela.” 26 (40), 1942-1944.
- d. GREENWAY, D. F., 1939.—“Amebiasis y otros entozoarios intestinales en Tartagal (departamento de Orán), provincia de Salta.” 26 (50), 2432-2434.
- e. CAMAÑER, A. F., 1939.—“Consideraciones sobre cinco casos personales de equinococosis raquídea.” 26 (51), 2482-2487.

(564a) Mindlin & Urribarri Abbadie report good results in the treatment of pinworm infection by the use of ether enemas, given daily. In some cases they have added small quantities of garlic, cod liver oil and almond oil, but these are not essential. P.A.C.

(564b) Saurez Morales reports the presence of microfilariae in Bolivia in the district of Monteagudo. This is the first record for the country, though 6 carriers were found in this survey. He identifies the embryos as *Mf. demarquayi*. No very serious symptoms are associated with its presence. P.A.C.

565—Problemi Tuberkuleza.

- *a. VASILKOVA, Z. G., 1939.—[Paragonimiasis of the lungs.] No. 11, pp. 65-67.

566—Proceedings of the Indiana Academy of Science.

- a. CABLE, R. M., 1939.—“A preliminary report on the life history of a species of *Amphimerus* (Trematoda: Opisthorchiidae) from the snapping turtle (*Chelydra serpentina*).” [Abstract.] 48, p. 201.
- b. HEADLEE, W. H., 1939.—“Additional data concerning human intestinal parasite infections in Indiana.” 48, 233-237.

(566a) Embryonated eggs of *Amphimerus* sp. were isolated with 10 specimens of *Goniobasis semicarinata*. The snails were cracked at intervals and examined. One died, 4 became infected and 5 gave negative results. Of the infected snails one, examined after 90 days, contained 24 cercariae capable of swimming; the other 3 had no mature cercariae, but mother and daughter rediae were observed. The second intermediary is not known. A.E.F.

567—Proceedings of the National Academy of Sciences, India.

- a. MEHRA, R. K., 1939.—“New monostomes of the family Pronocephalidae Looss, 1902.” 9 (3), 99-130.

(567a) Mehra has examined turtles of the species *Chelone mydas*, caught off Karachi in June 1936, for trematodes of the family Pronocephalidae. The most common species found was *Pronocephalus obliquus* Looss. The following new species are described and figured: *Charaxicephalus loossi* n. sp., *Pleurogonius karachii* n. sp., *P. sindhii* n. sp., *P. chelonii* n. sp. and *P. keamarii* n. sp. *Renigonius orientalis* n. g., n. sp. is described from *Kachuga dhongoka*. The genera *Glyphicephalus*, *Barisomum* and *Myosaccus* are reduced to the synonymy of *Pleurogonius*. A.E.F.

* Original not available for checking or abstracting.

568—Proceedings of the Royal Society of Queensland.

- a. ROBERTS, F. H. S., 1939.—“The gastro-intestinal helminths of cattle in Queensland: their distribution and pathogenic importance.” 50 (9), 46-54.

(568a) Roberts found that the most important helminths of cattle in Queensland are *Haemonchus contortus*, *Oesophagostomum radiatum* and *Cooperia* spp. Pathogenic infections with other species such as *Ostertagia ostertagi* and *Trichostrongylus axei* as well as paramphistomes, tapeworms and hookworms were also observed but were not numerous. The author also made observations on symptoms, number of worms and egg-counts in affected animals and on the distribution of the various species throughout Queensland. D.O.M.

569—Proceedings of the Society for Experimental Biology and Medicine.

- a. McNAUGHT, J. B., BEARD, R. R. & DEEDS, F., 1939.—“Further observations of phenothiazine in experimental trichinosis.” 42 (2), 645-648.

(569a) The effect of phenothiazine in experimental trichinosis previously reported by the authors [see Helm. Abs., Vol. VIII, No. 239b] has been re-examined. From these later studies it is concluded that “no evidence was found that Phenothiazine administered prior to, concurrent with or after infestation, has any appreciable value in experimental trichinosis in rats”. Their opinion that females have a higher resistance than males is based on the number of encysted *Trichinella* found after feeding standard doses of larvae. R.T.L.

570—Progrès Médical.

- a. GOINARD, P., 1939.—“Les kystes hydatiques du poumon.” 67 (44-45), 1262-1265, 1266, 1271.

571—Publications. Canada Department of Agriculture.

- *a. SWALES, W. E., 1939.—“The control of stomach worms in sheep in eastern Canada.” No. 639, 7 pp.

572—Puerto Rico Journal of Public Health and Tropical Medicine.

- a. ASENJO, C. F., 1939.—“The latex of *Ficus pumila* L. I. History, proximate composition and anthelmintic properties.” 15 (2), 141-170.
b. HOFFMAN, W. A., 1939.—“*C. hirsuta filariferus*, new species, intermediate host of an unidentified filaria from south-western Mexico.” 15 (2), 172-174. [Also in Spanish pp. 175-176.]

(572b) In 1936 Dampf [see Helm. Abs., Vol. V, No. 562a] noted that a species of *Culicoides* captured near Huixtla, in southwest Mexico, was occasionally infected with sausage stage larvae of an unidentified nematode, possibly an *Onchocerca*. The species has now been named *Culicoides filariferus* n. sp. [No further work has been done on the parasite.] R.T.L.

* Original not available for checking or abstracting.

573—Quarterly Bulletin. Association of Food and Drug Officials of the United States.

- *a. NELSON, T. C., 1930.—“Trichinella: the most dangerous parasite in the metropolitan area.” 3, 63-68.

574—Rassegna di Medicina Industriale.

- *a. TOSTI-CROCE, F., 1939.—“Contributo clinico allo studio della anchilostomiasi.” 19, 573-589.

575—Rassegna Sanitaria dell'Africa Orientale Italiana.

- *a. L'ABBATE, G., 1939.—“Contributo allo studio della distribuzione geografica della bilarziosi vescicale.” 1, 43-45.

576—Rassegna di Studi Psichiatrici.

- *a. GIGANTE, D., 1939.—“Contributo anatomo-clinico allo studio della cisticercosi cerebrale.” 28, 906-949.

577—Records of the Indian Museum.

- a. MAPLESTONE, P. A., 1939.—“Notes on some nematodes new to India.” 41 (4), 419-421.

(577a) *Echimuria uncinata* is recorded from India for the first time. It occurred in *Querquedula querquedula*. From a Capuchin monkey, *Cebus capucinus*, Maplestone describes *Gongylonema capucini* n. sp. It is half the length of *G. macrogubernaculum* and *G. microgubernaculum* previously found in monkeys. In the new species the gubernaculum is absent. The short spicule ends with a thickening marked by transverse grooves which distinguish it from *G. microgubernaculum*. R.T.L.

578—Rendiconti. Istituto di Sanità Pubblica.

- a. GIOVANNOLA, A., 1939.—“Alcune osservazioni sulla diffusione delle elmintiasi umane in Sardegna.” 2 (2), 407-414.
- b. GIOVANNOLA, A., 1939.—“Ospiti intermedi dello *Schistosoma mansoni* in Africa Orientale italiana.” 2 (3), 791-796.
- c. PENSO, G., 1939.—“Su due anguilluline parassite dei banani della Somalia italiana.” 2 (3), 849-852.
- d. PENSO, G., 1939.—“Ascaridiosi epizootica dei merluzzi da *Agamocheilida capsularia*.” 2 (3), 853-860.
- e. GIOVANNOLA, A., 1939.—“Lo studio della parassitologia in Italia ed all'Estero.” 2 (3), 923-938.

(578b) In this posthumous paper Giovannola differentiates *Planorbis adowensis* Bourguignat from *P. ruppellii* Dunker, which he had found to be the intermediaries of *Schistosoma mansoni* in Harar and in Eritrea respectively. He defines and illustrates a biometrical dimension, the angle of aperture, which is of value in the differentiation of species of *Planorbis*. B.G.P.

* Original not available for checking or abstracting.

(578c) Penso has found nematodes which he considers to be parasitic in diseased banana roots from Italian Somaliland. He briefly describes and figures two forms, namely, *Mauginia musae* n. g., n. sp., and *Cephalobus elongatus* de Man. T.G.

(578d) Penso redescribes the larval ascarid, usually known as *Ascaris capsularia*, under the name *Agamocheilida*. It is epizootic in fish in the Adriatic. B.G.P.

579—Report of the Chief of the Bureau of Animal Industry. United States Department of Agriculture.

- a. UNITED STATES. BUREAU OF ANIMAL INDUSTRY, 1939.—
[Report of the Zoological Division.] Year 1938-1939, pp. 69-82.

(579a) The steaming of horse manure destroys the eggs and larvae of helminths of horses. Under outdoor conditions only a very small proportion of eggs yielded infective larvae between December and April at Beltsville, Md. The ammonium hydroxide evolved during the decomposition of urea is responsible for the destruction of strongyle eggs when urea is added to horse faeces at Logan, Utah. The livers of 867 out of 2,364 cattle slaughtered were condemned for fluke at a loss of 1,444.44 dollars. Under laboratory conditions *Limnaea stagnalis wasatchensis* and *Fossaria modicella rustica* were shown to act as intermediate hosts. The foci of infection are limited to relatively small areas. Experimental feeding of sheep with oribatid mites from sheep pastures near Beltsville resulted in *Moniezia* eggs appearing in the faeces in 40 days. 294 out of 1,373 mites collected during August were found to be infected. The mites occur on grass and soil to a depth of at least 2 inches. It is noted that death from migration of larvae through the lungs is caused in sheep by *Taenia hydatigena*. *Haemonchus contortus* produces anaemia by capillary haemorrhage in the fourth stomach as a result of destruction of the mucous membrane. Only a very small proportion of grain and cooked garbage pigs showed trichina infection. Frankfurt sausages were free from infection. An antigen, so prepared that it contained suspended particles of finely powdered trichinae gave positive results in 80% of infected pigs in skin tests. Studies were also made on lungworms, thornheaded worms and kidney worms in pigs. Meal beetles were found to be susceptible to infection with *Raillietina cesticillus* of poultry. Barium antimonyl tartrate used as a dust inhalation was highly effective against gapes. As anthelmintic treatments various preparations of tin were found effective against *Raillietina cesticillus* and phenothiazine proved of high efficacy against roundworms in sheep and pigs. R.T.L.

580—Report of the New York State Veterinary College.

- a. BAKER, D. W. & BRITTON, J. W., 1939.—“Egg counting technique for use in the diagnosis of equine strongylosis.” Year 1937-1938, pp. 175-182.

(580a) Baker & Britton describe their method for the determination of the qualitative and quantitative diagnosis of equine strongylosis. Observations on 15 horses showed the egg output per female worm per gram of faeces to be: *S. vulgaris* 1.79, *S. equinus* 1.78, *S. edentatus* 2.1 and for the small

strongyles 0.5 to 1.0. These results were obtained by Stoll egg counts and qualitative larval counts of 100 or more infective larvae raised from cultures. The egg count per gram of faeces per adult female worm for each species was then calculated by dividing the number of adult female worms of the species found at post-mortem into the number of eggs per gram for that particular species. Figures are also given of the sex ratios of 2 species of strongyles obtained from a large number of post-mortems on horses; they show 3 female to 1 male *S. vulgaris*, and 1.7 female to 1 male *S. edentatus*. Inter-monthly fluctuations of egg counts on 150 horses are discussed. J.W.G.L.

581—Revista de la Asociación Médica Argentina.

- *a. CASTRO, C. A., 1939.—“Coleperitoneo hidático por quiste supurado roto espontáneamente en la cavidad abdominal.” 53, 807-810.

582—Revista da Associação Paulista de Medicina.

- *a. SOARES HUNGRIA, J., 1939.—“Um caso de obstrução do coledoco por ascarides lombricoide.” 14, 233-237.

583—Revista de Biologia e Higiene.

- *a. GALVÃO, A. L. A. & AMARAL, A. D. F. DO, 1939.—“Investigações sobre a dermatite linear serpiginosa do litoral paulista.” 10, 1-11.

584—Revista Chilena de Higiene y Medicina Preventiva.

- *a. NEGhme RODRÍGUEZ, A., 1939.—“Encuesta sobre amebiasis y otras enteroparasitosis en los conscriptos del ejército de Chile: Guarnición de Antofagasta.” 2, 65-66.
 b. NEGhme RODRÍGUEZ, A., 1939.—“La amebiasis y otras enteroparasitosis en los conscriptos del ejército de Chile. VII comunicación: Guarnición Militar de Arica. (Segunda encuesta).” 2 (7/12), 327-329.

(584b) Among 200 conscripts of the Arica garrison, Neghme Rodriguez found (in addition to protozoa) 13 cases of *Hymenolepis nana* infestation, 10 of *Trichuris*, 3 of *Ascaris* and 2 of *Taenia saginata*. B.G.P.

585—Revista de Chirurgie si Bulletins et Mémoires de la Société de Chirurgie de Bucarest.

- *a. TZOVARU, S., PODEANU, G. & ZAMANI, I., 1939.—“Kyste hydatique du poumon, sans liquide, chez un enfant. Opération en deux temps. Guérison rapide.” 42, 601-612.
 *b. TOPA, P. & CARAMZULESCO, D., 1939.—“Kyste hydatique du mésocolon descendant.” 42, 867-870.

586—Revista de Ciencias Médicas.

- a. SANTOS DE FERRER, R. & FERRER CARTAYA, M., 1939.—“Las enfermedades por carencia y el parasitismo intestinal en la población rural, como problema social.” 2 (7), 193-195.

* Original not available for checking or abstracting.

587—Revista Fluminense de Medicina.

- *a. MACHADO, O., 1939.—“Doenças parasitarias.” 4, 159-180.

588—Revista Médica de Chile.

- *a. ESTÉVEZ, R., 1939.—“Consideraciones sobre el tratamiento quirúrgico de los quistes hidáticos pulmonares.” 67, 1290-1316.

589—Revista Médica Latino-Americana.

- a. SANTOS, C., 1939.—“A terapeutica da quilúria.” 24 (288), 1221-1223.

590—Revista Médica del Rosario.

- *a. STAFFIERI, D. & MINNHAAR, T. C., 1939.—“Anquilostomiasis autóctona; nuevas observaciones.” 29, 1325-1329.

591—Revista Médica Veracruzana.

- *a. SEGOVIA, A., 1939.—“Importancia de la exactitud en la dosificación del aceite de quenopodio en el tratamiento de las helmintiasis.” 19, 2938-2950.

592—Revista Médica de Yucatán.

- *a. PALOMO EROSA, E., 1939.—“Seis casos de *Hymenolepis nana* en Yucatán.” 20, 193-196.

593—Revista de Medicina Veterinaria. Bogotá.

- a. CAICEDO ARBOLEDA, C. A., 1939.—“La medicación cupro-arsenical en el tratamiento de la strongyloidiasis gastro-intestinal de los terneros.” 9 (77), 379-407.

(593a) Caicedo Arboleda has found 60% of young cattle in Boyacá, Colombia, infested with gastro-intestinal strongyles, of which *Bunostomum* was the most prevalent. Against them he used 30 to 50 c.c. of the following mixture: sodium arsenate, 3.5 g.; copper sulphate, 18 g.; citric acid, 15 g.; water, 900 c.c. This was given to 120 cattle in water in three doses with intervals of 5 days. It was well tolerated, cheap and effective, though ineffective against trichuris, fluke, ascaris and coccidia. The paper includes descriptions of parasites and 7 post-mortem reports. B.G.P.

594—Revista Médico-Quirúrgica de Patología Femenina.

- a. PUNTEL, A. A., 1939.—“Hidatidosis pelviana en la mujer.” 14, 739-755.

595—Revista Mexicana de Medicina Veterinaria.

- a. VAN VOLKENBERG, H. L., 1939.—“Especies de helmintos parásitos de los animales domésticos en Texas.” 2 (23), 9-12.
b. CHAVARRÍA CH., M., 1939.—“Platelmintos determinados en los animales domésticos de México.” 2 (23), 13-18.

* Original not available for checking or abstracting.

(595a) [This paper appeared in English in *Veterinary Medicine*, 1939, 34, 465-467. See *Helm. Abs.*, Vol. VIII, No. 424c.]

(595b) Chavarria lists 23 species of tapeworm, and *Fasciola hepatica*, which have been found in domesticated animals in Mexico. B.G.P.

596—Revista de la Policlínica Caracas.

- a. JAFFÉ, R., 1939.—“Sobre la bilharziosis en niños y jóvenes (hasta los veinte años).” 9, 3261-3272.
- b. PARPARCÉN, J. V., 1939.—“Con relación al problema hepatoesplénico de la Schistosomiasis mansoni.” 9, 3187-3218, 3287-3312.

597—Revista de la Sociedad Mexicana de Historia Natural.

- a. AGUIRRE PEQUEÑO, E., 1939.—“La *Limnaea attenuata* Say, huésped intermediario de la *Fasciola hepatica* en la Republica Mexicana.” 1 (1), 67-70.

598—Revista de Tuberculosis del Uruguay.

- a. SCIUTO, J. A. & CARRIQUIRRY, P. C., 1939.—“La hemoptisis como manifestación clínica tardía de secuela de quiste hidático pulmonar.” 8 (1), 74-82.

599—Revue Médicale Française d'Extrême-Orient.

- a. MASSIAS, C. & NGUYEN-DINH-HAO, 1939.—“Poly-invagination intestinale par ascaridiose. Hyperazotémie à 6 grs 45.” 17 (5), 615-616.
- b. TOUMANOFF, C., TRY, H. T. & CHANG, T. L., 1939.—“Au sujet de l'existence de *Filaria malayi* et *Filaria bancrofti* dans la haute-région tonkinoise et du rôle probable des diverses espèces culicidiennes dans la transmission de la filariose humaine.” 17 (7), 871-876.
- c. TOUMANOFF, C., 1939.—“Recherches sur la transmission de la filariose canine à *Dirofilaria immitis* au Tonkin.” 17 (8), 1000-1014.

(599b) Toumanoff and his co-workers record *F. malayi* and *F. bancrofti* for the first time in the upper regions of Tonkin. Observations on their transmission led to the conclusion that *Anopheles minimus* and *A. jeyporiensis*, which were found naturally infected with filarial larvae, may be vectors in the upper regions. These mosquitoes are rare in the delta region, where it is thought that *A. hyrcanus* var. *sinensis* and *Mansonia indiana* are possible vectors. *Culex fatigans* is also suspected. J.J.C.B.

(599c) By engorging mosquitoes on a dog heavily infested with *Dirofilaria immitis*, Toumanoff has shown that in Tonkin the following species become infected: *Stegomyia albopicta*, *S. fasciata*, *Culex fatigans*, *Anopheles hyrcanus* var. *sinensis*, and *A. vagus*. About 64% of infected *Stegomyia* are killed within 10 days by the infection, and about 12% and 14% of the two species show completed development of the parasite, but only in the rainy season (summer). B.G.P.

600—Rivista Ospedaliera.

- *a. RUSSO, F., 1939.—“La reazione di Casoni nelle malattie non echinococciche.” 29, 455-473.

* Original not available for checking or abstracting.

601—Rivista di Parassitologia.

- a. VITIELLO, M., 1939.—“Variazioni del tasso creatinico ematico in rapporto al parassitismo.” 3 (4), 317-328.
- b. CORRADETTI, A., 1939.—“Una nuova microfilaria rinvenuta nel dig-dig specie di antilope della Dancalia meridionale.” 3 (4), 335-338.

(601a) Vitiello found that the [“total”] creatinine (estimated by a form of the Folin autoclave and picric acid technique) in the blood of highly parasitized sewer rats was lower than in lightly parasitized rats. It is suggested that the [“total”] creatinine is lowered by the catabolic processes induced by the parasites and that the parasites themselves absorb creatine and creatinine.

W.P.R.

(601b) Corradetti describes *Microfilaria madoquae* n. sp. from the antelope *Madoqua kirki* in Italian East Africa. The microfilaria, 149 μ long, is described as having a sheath at the posterior extremity only [the photograph shows merely a tail free from nuclei].

B.G.P.

602—Salud y Sanidad.

- a. CARVALLO, I., 1939.—“Parásitos intestinales.” 8 (86/88), 9-10.

603—Science and Culture.

- a. CHAKRAVARTY, G. K., 1939.—“On the nematode *Camallanus anabantis* Pearse.” [Correspondence.] 5 (5), 317-318.

(603a) Chakravarty redescribes and figures *Camallanus anabantis* Pearse, 1933, which he recovered from the intestine of *Anabis testudineus* in India (a new record for that country) in 1937. He compares *C. anabantis* with the 9 other species of the genus reported from fishes. There are certain points in which Chakravarty's specimens do not agree with Pearse's original description, but this may be due to the fact that the latter's specimens were immature. A re-examination of Pearse's material is suggested.

A.E.F.

604—Scottish Naturalist.

- a. FRIENDS, G. F., 1939.—“Gill parasites of brown trout in Scotland.” No. 239, pp. 123-126.

(604a) Friends records *Discocotyle sagittata* from the gill-filaments of a brown trout from the river Devon, Perthshire. This is stated to be a new record for Scotland.

A.E.F.

605—Sei-i-Kwai Medical Journal.

- *a. NAKAOKA, K., 1939.—“Beiträge zur Kenntnis über den Einfluss der ultravioletten Strahlen 3900Å-2900Å auf die Lebewesen. Ueber den Einfluss auf das Wachstum der Nematoda-Eier.” 58 8, 1195-1238. [In Japanese: German summary pp. 1-2.]

* Original not available for checking or abstracting.

606—Semana Médica.

- *a. DASSEN, R., LOMBARDI, E. A. & FISHER, A., 1939.—“Forma pseudo triquinosa de la melitococcia o melitococcia despertando reacciones alérgicas.” Year 1939, 2, 545-548.
- *b. PALADINO, J. & GALARCE, J. E., 1939.—“Parasitosis apendicular.” Year 1939, 2, 689-690.

607—Settimana Medica.

- a. TESORIERE, A., 1939.—“Sul raro meccanismo di formazione di una peritonite saccata, insorta in seguito a rottura di una cisti idatidea suppurata a sede epatica.” 27 (24), 725-728.
- b. BRUNI, A., 1939.—“Il fattore di diffusione nell'*Ankylostoma duodenale*.” 27 (37), 1105-1106.

(607b) Bruni believes there is a glandular secretion in *Ancylostoma duodenale* which has the power of diffusion through the host tissues and which may be responsible for the production of hookworm anaemia. P.A.C.

608—Smithsonian Miscellaneous Collections.

- a. McINTOSH, A., 1939.—“A new dicrocoeliid trematode collected on the Presidential Cruise of 1938.” 98 (16), 1-2.

(608a) A short description and figure of *Infidum luckeri* n. sp. is given from a single specimen found in the gall bladder of *Orophis* (*Dromicus*) *hoodensis* which died in the National Zoological Park but originated in the Galapagos Islands. A key to the genus is given: the two other species occur in snakes from Brazil. N.G.S.

609—Southern Medical Journal.

- a. HARRELL, G. T. & JOHNSTON, C., 1939.—“The incidence of trichinosis in the Middle South.” 32 (11), 1091-1094.
- b. SMITH W. H. Y., GILL, D. G. & McALPINE, J. G., 1939.—“Intestinal parasite survey in Alabama.” 32 (11), 1094-1105.

610—Southern Medicine and Surgery.

- *a. KING, E. S. & SIMMONS, J. S., 1939.—“Hookworm among college men.” 101, 544-545.

611—Southern Seedsman.

- a. GODFREY, G. H., 1939.—“New use for world war tear gas: sterilization of soil and nematode control offers peace time use for chloropicrin.” 2 (2), 3, 14, 20.

(611a) In a popular article Godfrey outlines the uses of chloropicrin as a soil fumigant. When efficiently applied it will kill nematodes, insects, fungi and weed seeds and bring about partial sterilization of the soil. Methods of application are referred to briefly. M.T.F.

* Original not available for checking or abstracting.

612—Taiwan Igakkai Zassi.

- a. RO, M., 1939.—“On the size and form of normal eggs of the lung fluke (*Paragonimus westermanii*).” 38 (12), 1701-1705. [In Japanese: English summary p. 1705.]

(612a) Ro describes the eggs of *Paragonimus westermanii* as seen in the sputum of patients and the faeces of dogs, and finds that normal eggs from the former are shorter and wider than the latter. 1,552 eggs were measured. The paper is illustrated with 20 drawings of normal eggs from dogs and humans.

J.C.B.

613—Tanganyika Notes and Records.

- *a. HAWKING, F., 1939.—“Filariasis.” 7, 28-34.

614—Tidsskrift for Planteavl.

- a. BOVIEN, P., 1939.—“Skadedyr af saerlig Interesse.” In: “Plantesygdomme i Danmark 1938. Oversigt, samlet ved Statens plantepatologiske Forsøg. (Plant diseases and pests in Denmark 1938).” 44 (1), 37-49.

(614a) Bovien deals briefly with reports of the occurrence of eelworm attacks on crops in various parts of Denmark during 1938. The oat, beet and potato strains of *Heterodera schachtii* were found, the first mentioned on both oats and wheat. The root-knot nematode, *H. marioni*, was found on carrots. The stem eelworm, *Tylenchus dipsaci*, was reported from red and white clover and from lucerne and was also found affecting *Hortensia*. *Aphelenchoides ritzema-bosi* seriously damaged chrysanthemums at one centre.

T.G.

615—Tierärztliche Rundschau.

- a. BÜCHLMANN, E., 1939.—“Die operative Behandlung drehkranker Rinder.” 45 (38), 729-732.
 b. BAUDET, E. A. R. F., 1939.—“Massenhafte Invasion von *Dicheilonema rhae*.” 45 (39), p. 739.
 c. KREMBS, J., 1939.—“Fallwilduntersuchungen 1935 mit 1938.” 45 (42), 763-766; (43), 773-776.

(615a) Büchlmann discusses in some detail the surgical removal of *Coenurus cerebralis* in cattle.

B.G.P.

(615c) Krembs reports on the diseases of 432 wild and game animals in Bavaria, belonging to 14 mammalian and 8 avian species. The findings are tabulated on p. 765. Parasites were found in 85% of cases, and were considered the immediate cause of death in 30%. Parasitic infestations predominate over infections, except in hares.

B.G.P.

616—Tijdschrift voor Diergeneeskunde.

- a. BAUDET, E. A. R. F., 1939.—“Over het streven naar evenwicht tusschen parasiet en gastheer.” 66 (13), 651-666.

(616a) In his inaugural address, Baudet discussed the tendency towards equilibrium in host-parasite relationships, as exemplified in a number of helminths, protozoa, and fungi.

B.G.P.

* Original not available for checking or abstracting.

617—Transactions of the Kansas Academy of Science.

- a. CASE, A. A. & ACKERT, J. E., 1939.—“Intermediate hosts of chicken tapeworms found in Kansas.” 42, 437-442.

(617a) Case & Ackert point out the importance of ground beetles in the transmission of poultry tapeworms in Kansas. Whereas previously slugs, earthworms and flies were supposed to be the main vectors, they now show that 19 genera and 29 species of beetles may act as vectors and do so more frequently than the other invertebrates. *Amara fallax*, *Anaferonia constricta* and *Tenebroides mauritanicus* are new records for the intermediate host of *Choanotaenia infundibulum*. P.A.C.

618—Transactions of the Ophthalmological Society of the United Kingdom.

- a. McMULLEN, W. H., 1939.—“Ocular filariasis, with a report of a case in which *Microfilariae bancrofti* were seen in the anterior chamber.” 59 (2), 587-601.

(618a) McMullen cites 14 papers which deal with the occurrence of adult or embryonal filarial worms in or around the eye. He reports a case of microfilariae of *Filaria bancrofti* seen in the anterior chamber of the eye in a Hindu student from Calcutta. It was shown at the Royal Society of Medicine in 1937 [see Helm. Abs., Vol. VI, No. 350a]. R.T.L.

619—Transactions of the Pacific Coast Oto-Ophthalmological Society.

- *a. LANDEGGER, G. P., 1939.—“*Filaria loa* in the eye.” 24, 230-237.

620—Transactions of the Royal Society of South Australia.

- a. JOHNSTON, T. H. & SIMPSON, E. R., 1939.—“Larval trematodes from Australian terrestrial and freshwater molluscs. Part V.” 63 (1), 63-68.
 b. JOHNSTON, T. H. & MAWSON, P. M., 1939.—“Strongyle nematodes from Queensland marsupials.” 63 (1), 121-148.
 c. JOHNSTON, T. H. & ANGEL, L. M., 1939.—“Larval trematodes from Australian freshwater molluscs. Part VI.” 63 (2), 200-203.
 d. JOHNSTON, T. H. & MAWSON, P. M., 1939.—“Sundry nematodes from Eastern Australian marsupials.” 63 (2), 204-209.
 e. JOHNSTON, T. H. & SIMPSON, E. R., 1939.—“The diplostomulum stage of *Cercaria murrayensis*.” 63 (2), 230-237.
 f. JOHNSTON, T. H. & MAWSON, P. M., 1939.—“Some nematodes from Victorian and Western Australian marsupials.” 63 (2), 307-310.

(620a) *Cercaria parocellata* n. sp. from *Limnaea lessona* described by Johnston & Simpson is a schistosome cercaria closely resembling *C. ocellata*, while *Cercaria plotiopsis* n. sp. from *Plotiopsis tatei* does not differ in essentials from the cercariae of *Monorchotrema taihoku* and *M. taichui*. R.T.L.

(620b) Included in the paper by Johnston & Mawson are the following new forms: *Zoniolaimus bancrofti* n. sp. from *Macropus parryi*; *Z. bipapillosus* n. sp. from *M. major*; *Z. communis* n. sp. from *M. ualabatus* and *M. wilcoxi*; *Z. insularis* n. sp. from *M. welsbyi*; *Z. uncinatus* n. sp. from *M. dorsalis* and

* Original not available for checking or abstracting.

M. apicalis; *Z. onychogale* n. sp. from *Onychogale frenata*; *Cloacina robertsi* n. sp. from *Petrogale penicillata* and *Macropus agilis*; *C. burnettiana* n. sp. from *M. dorsalis*; *C. similis* n. sp. from *Petrogale penicillata*; *C. longispiculata* n. sp. from *Macropus agilis*; *C. bancroftorum* n. sp. from *M. dorsalis*; *Pharyngostrongylus gamma* n. sp. from *M. dorsalis* and *M. parryi*; *P. delta* n. sp. from *M. dorsalis*; *P. epsilon* n. sp. from *M. dorsalis* and *M. wilcoxi*; *P. zeta* n. sp. from *Petrogale penicillata*, *Macropus dorsalis* and *M. thetidis*; *P. eta* n. sp. from *Macropus* sp.; *Buccostrongylus buccalis* n. g., n. sp. from *M. dorsalis*, *M. wilcoxi* and *M. parryi*; *B. australis* n. sp. from *M. wilcoxi* and *M. thetidis*; *Papillostrongylus labiatus* n. g., n. sp. from *M. dorsalis*; *Coronostrongylus coronatus* n. g., n. sp. from *M. wilcoxi* and *M. thetidis*; *Globocephaloides wallabiae* n. sp. from *M. dorsalis*; and *G. affinis* n. sp. from *M. dorsalis*. B.G.P.

(620c) *Cercaria clelandae* n. sp. from *Planorbis isingi* closely resembles the cercariae of *Echinoparyphium recurvatum* and *E. reflexum*. R.T.L.

(620d) Ten nematode species of which one is new are identified from Australian marsupials. *Physaloptera peramelis* n. sp. from the stomach of *Perameles nasuta* was described but not named by Ortlepp (1922). *Cloacina minor* of Johnston & Mawson, 1938 is renamed *C. longelabiata* following the transference of *Macropostrongylus minor* to *Cloacina*. R.T.L.

(620f) Johnston & Mawson record a number of species of nematodes from marsupials, including *Potorostrongylus finlaysoni* n. g., n. sp., in the Trichoneminae, and a new species *potoroo* assigned in the absence of males to *Oxyuris* (s.l.), both from *Potorous tridactylus* in southern Gippsland. B.G.P.

621—Transactions of the Royal Society of Tropical Medicine and Hygiene.

- BAYLIS, H. A., 1939.—“*Taenia serialis* (larval form, *Coenurus*) causing torsion of the jaw in a wild rabbit.” [Demonstration.] 33 (1), p. 4.
- JAMES, S. P., 1939.—“Microfilariae in the blood of Java sparrows.” [Demonstration.] 33 (1), p. 7.
- LANE, C., 1939.—“Further evidence for (1) emptying spirt as the mode of parturition which obtains in *Wuchereria bancrofti*; (2) abundant destruction of this parasite's young before they get into the blood.” [Demonstration.] 33 (1), p. 8.
- MANSON-BAHR, P. & MARTIN, P. H., 1939.—“Microfilariae of *Onchocerca volvulus* in the skin, associated with eye symptoms from a recently discovered epidemic focus in Kenya.” [Demonstration.] 33 (1), p. 8.
- MURGATROYD, F., 1939.—“Two cases of epilepsy due to cysticercosis undiagnosed for more than 10 years.” [Demonstration.] 33 (1), p. 9.

622—Travaux de l'Institut Biologique de Péterhof.

- MARKOV, G., 1939.—“Some factors influencing the distribution of the bird trachean parasite nematode *Syngamus trachea* (Montagu) Chapin in starlings.” 17, 89-95. [In Russian: English summary p. 95.]
- LUTTA, A. S., 1939.—“On biology of *Leucochloridium paradoxum* (Carus).” 17, 96-102. [In Russian: English summary p. 102.]

(622a) In a survey of starlings, Markov found that 28% were infected with gapeworm in the district of Leningrad. He concludes that wild birds

are dangerous from the point of view of the distribution of the parasite, but that the danger is somewhat offset by the fact that not all the worms are able to reach maturity, for birds show a varying degree of age immunity which restricts the growth and maturation of the parasites. P.A.C.

623—Travaux de la Station Zoologique de Wimereux.

- a. DINULESCO, G., 1939.—“*Echinoparyphium recurvatum* Linstow. Conditions de son développement larvaire chez *Paludina vivipara* L.” 13, 215-223.

624—Vestnik Khirurgii.

- *a. GROPYANOV, M. A., 1939.—[Surgical therapy of echinococcosis in man.] 57, 587-592.
- *b. PINCHUK, G. I., 1939.—[Echinococcosis of the channel of the hypogastric veins.] 57, 646-647.
- *c. POTAPOV, V. G., 1939.—[Diagnosis of muscular echinococcosis.] 58, 7-II.
- *d. YANOVSKIY, S. M., 1939.—[Four cases of echinococcosis of the lungs.] 58, 17-20.
- *e. MITROFANOV, P. P., 1939.—[Case of echinococcosis of the spleen.] 58, 50-51.
- *f. KARTAVOVA, A. D., 1939.—[Penetration of ascarids into the abdominal cavity.] 58, 434-436.

625—Vestnik Oftalmologii.

- a. VARSHAVSKAYA, R. R., 1939.—[Echinococcosis of the orbit.] 15 (2), 82-86.

626—Veterinary Journal.

- a. MORGAN, E., 1939.—“Pigs in Venezuela.” 95 (11), 432-436.

(626a) The most prevalent diseases of pigs encountered by Morgan in the slaughter-house in Venezuela are parasitic. *Cysticercus cellulosae* or measly pork is very common in pigs reared round the towns, whereas pigs from the plains, far from dwelling houses, are rarely affected. In order to certify carcasses free from cysts it is necessary to mutilate the carcass: it is not sufficient only to examine the masseters, heart and tongue. *Stephanurus dentatus*, the cause of kidney worm disease, is the other prevalent parasite commonly met with; when heavily infected the pigs often show symptoms of paralysis of the hind quarters during or after a long journey. J.W.G.L.

627—Veterinary Medicine.

- a. MUNDHENK, R. L. & GREENE, J. E., 1939.—“Differentiation of canine hematozoa.” 34 (6), 364-371.

(627a) Mundhenk & Greene demonstrate a staining technique by which the larvae of *Spirocerca sanguinolenta* and *Dirofilaria immitis*, both parasites of the circulating blood of dogs, may be distinguished. They are not able to show how the larvae get from the blood stream to the supposed

* Original not available for checking or abstracting.

vectors, which are cockroaches and dung-eating beetles. *D. immitis* is a parasite of the ventricles of the heart, while *S. sanguinolenta* occurs in tumours in oesophagus and aorta. One interesting fact is that though many dogs showed large numbers of circulating larvae, yet at autopsy no adults of either species could be found. The authors have endeavoured to work out serological methods for diagnosis and give some hope that good results may be obtained from the precipitation test.

P.A.C.

628—Virchows Archiv für Pathologische Anatomie und Physiologie und für Klinische Medizin.

- a. TANASESCU, I. & REPCIUC, E., 1939.—“Ein Fall von *Cysticercus bovis* im Unterhautgewebe des Menschen.” 304 (4), 555-558.
- b. GRUBER, G. B., 1939.—“Über Veränderungen der Rehlunge nach Wurmbefall, sog. *Pneumonia verminosa*.” 304 (4), 597-607.

(628b) Gruber gives a detailed account of the pathology of *Muellerius capillaris* infestation in the lungs of deer. The paper is illustrated with 10 microphotographs.

A.E.F.

629—Vlaamsch Diergeneeskundig Tijdschrift.

- a. GEURDEN, L. M. G., 1939.—“De ziekten der visschen.” 8 (3), 69-84.
- b. LATTEUR, J. P., 1939.—“Bijdrage tot de behandeling van strongylose.” 8 (5), 135-144.

(629a) In this general account of the diseases of fish, Geurden deals briefly with the helminthic diseases on pp. 81 to 83. The fish which act as intermediaries are also touched upon, but not exhaustively.

B.G.P.

(629b) Equine vascular strongylosis is often difficult to diagnose, but Latteur relies partly on the blood-picture, which usually shows an eosinophilia with reduced lymphocytes and neutrophiles. He prefers oral aspidinolic acid to intravenous arsenic for treating both vascular and intestinal strongylosis; this drug, isolated from the ether-extract of male fern, he has shown to be absorbed and partly excreted by the liver.

B.G.P.

630—Vrachebnoe Delo.

- a. KANEVSKI, G. L., 1939.—“*Cysticercosis cellulosa universalis*.” 21 (9), 583-588. [In Russian.]

631—Year Book. Institute of Inspectors of Stock of New South Wales.

- a. GORDON, H. McL., 1939.—“The control of diseases caused by nematode parasites of sheep.” 1939, pp. 33-47.

(631a) *Haemonchus contortus* frequently affects sheep of all ages and is not prevented by a high state of nutrition. It is easily controlled by anthelmintics if administered early. *Trichostrongylus* spp. seldom affects seriously sheep older than 18 to 24 months. Their effects are semi-permanent. They are not easily controlled by anthelmintics or by nutrition. *Oesophagostomum columbianum* produces pathogenic effects throughout the

life of sheep. In young non-resistant sheep the larvae remain in the bowel wall for a short time only and do not give rise to nodules, but in older resistant sheep they may remain for 3 or more months in the submucosa and cause extensive nodule formation. Anthelmintics by the mouth are very unsatisfactory but enemas are very effective, although this method is slow and tedious and may cause losses. Of other nematodes of sheep in Australia *Chabertia ovina* and *Dictyocaulus filaria* are the most important, while *Ostertagia* if present in large numbers has serious pathogenic consequences. Special control measures as an annual regime and as a means of controlling outbreaks are discussed.

R.T.L.

632—Zeitschrift für Fleisch- und Milchhygiene.

- a. MÖNNIG, H. O., 1939.—“Das Finnenproblem in Südafrika.” 50 (1), 9-10
- b. CIUREA, I. & CIUREA, C., 1939.—“Über die Invasion einiger Fischarten aus dem Donauteich Greaca mit Trematodenlarven von *Clinostomum complanatum* (Rud.).” 50 (1), 10-12.

(632a) Mönnig points out that in South Africa, where *Taenia saginata* is very common in the Negro population, and its cysticercus in their cattle, there is need for a safe and effective taeniafuge and for simple instruction in prophylaxis.

B.G.P.

(632b) I. & C. Ciurea report that the metacercaria of *Clinostomum complanatum* (adult in the pharynx of Ardeiform birds) was recently found in large numbers infesting the musculature and gills of fresh-water fish, particularly perch, in Lake Greaca. This lake supplies large numbers of fish to the Bucharest market, about 54 km. distant. Some degree of prophylaxis was secured by destroying colonies of infested birds living near the lake. The metacercaria is described.

B.G.P.

633—Zeitschrift für Infektionskrankheiten, Parasitäre Krankheiten und Hygiene der Haustiere.

- a. BAUDET, E. A. R. F., 1939.—“Gehäuftes Sterben bei Tauben durch *Cotylurus cornutus*.” 55 (3/4), 244-251.

(633a) Baudet reports from Holland a severe infestation of carrier pigeons with *Cotylurus cornutus*. Of 32 pigeons affected 20 died within a few weeks. One pigeon which died was 3 weeks old and had only been fed by its mother; the disease was therefore transmitted with food from the mother's crop, which must have contained infected snails. The only previous record of this parasite in pigeons is that of Bittner (1925) in Bulgaria. Baudet describes *C. cornutus* and gives an account of its life-history and pathology.

A.E.F.

634—Zeitschrift für Klinische Medizin.

- a. HENI, F., 1939.—“Beitrag zur Klinik des *Echinococcus alveolaris*.” 136 (4), 547-559.

635—Zeitschrift für Parasitenkunde.

- a. YAMAGUTI, S., 1939.—“Über die Ursache der sog. ‘schwarzen Winterflecke’ der japanischen Süßwasserfische.” 10 (6), 691-693.
- b. SZIDAT, L., 1939.—“Beiträge zum Aufbau eines natürlichen Systems der Trematoden. I. Die Entwicklung von *Echinocercaria choanophila* U. Szidat zu *Cathaemasia hians* und die Ableitung der Fasciolidae von den Echinostomidae.” 11 (2 3), 239-283.
- c. MIRZA, M. B. & BASIR, M. A., 1939.—“New genus and species of the nematode sub-family Dicheilonematinae Wehr. *Setarospiculum varani* n. g., n. sp.” 11 (2 3), 433-434.

(635a) Yamaguti found that the presence of black pigmented areas on the scales and fins of certain Japanese fresh-water fishes, particularly apparent during the winter months, is associated with the presence on them of the metacercariae of two species of *Metagonimus*, namely, *M. takahashii* and *M. yokogawai*. He proved this by feeding infected material to cats and kites. Eggs of *M. takahashii* appeared in the droppings 8 to 10 days after feeding with metacercariae. He gives a list of birds which serve as the definitive hosts of these two species of flukes. T.G.

(635b) L. Szidat first gives an illustrated description of the life-cycle of *Cathaemasia hians* from the oesophagus of storks. The first intermediary was found to be *Planorbis planorbis*, *P. contortus*, *P. septemgyratus* or *Limnaea palustris* (of 11 species tried), and the cercaria is *C. choanophila* U. Szidat, 1936, with 47 frail collar-spines, which encysts on amphibians. Szidat next propounds the theory that trematodes and their hosts have evolved step by step (thus, trematodes of a single family may occur throughout the vertebrate orders), and proceeds to derive the Fasciolopsidae and Campulidae from primitive echinostomes, aberrant descendants of which are also *Cathaemasia*, *Philophthalmus* and others. These echinostomes and their relatives form a new suborder Echinostomata of the order Fasciolatoidea. B.G.P.

(635c) Mirza & Basir briefly describe and figure *Setarospiculum varani* n. g., n. sp., based on 3 males and 6 females from connective tissues of *Varanus indicus*. B.G.P.

636—Zeitschrift für Veterinärkunde.

- a. SCHMID, F., 1939.—“Beitrag zur Ätiologie und Diagnostik der Hautblutungen ungarischer Pferde.” 51 (4), 183-185.

(636a) Schmid reports the finding of 10 motile microfilariae in fresh blood from a Hungarian horse suffering from “blood sweating”. He discusses the biology of *Parafilaria multipapillosa* and suggests that the absence of this parasite from native horses is due to the fact that the vector (at present not known) does not occur in Germany. A.E.F.

637—Zentralblatt für Bakteriologie. Abteilung I. Originale.

- a. KOTLÁN, A., 1939.—“Zur Frage der Wirtsspezifität der Lungenwürmer.” 144 (7 8), 411-416.

638—Zentralblatt für Chirurgie.

- a. FILEP, F. R., 1939.—“Über den *Echinococcus multiplex*.” 66 (33), 1869-1871.
- b. ALLENDE, J. M., 1939.—“Choledochussyndrom durch ‘*Dystoma hepaticum*’.” 66 (37), 2052-2057.

639—Zentralblatt für Gynäkologie.

- a. RUZICKSKA, J., 1939.—“Die Häufigkeit des *Enterobius (Oxyuris) vermicularis* im Wurmfortsatz.” 63 (47), 2515-2524.

640—Zoologica. New York.

- a. McINTOSH, A., 1939.—“A new nematode, *Ascaris schroederi*, from a giant panda, *Ailuropoda melanoleuca*.” 24 (3), 355-357.

(640a) *Ascaris schroederi* n. sp. from the giant panda resembles *A. columnaris*, but has more pre-anal papillae, pericloacal cuticular digitations, and a relatively longer oesophagus. B.G.P.

641—Zoologica Poloniae.

- a. JANICKI, M. J., 1939.—“Untersuchungen zur Ernährungsfrage von *Diectophyme renale* (Goeze 1782).” 3 (2), 189-223.
- b. MICHAJŁOW, W., 1939.—“Über die Entwicklung der Eier von *Triaenophorus lucii* (Müll.) in Süß- und Meerwasser.” 3 (3), 251-259.

(641a) Janicki found *Diectophyme renale* to feed largely on blood and cellular haemorrhagic exudates. Histolytic and proteolytic enzymes were found in the secretion from the highly dendritic oesophageal glands. Digestion took place in the lumen of the mid-intestine and was carried out by globules secreted by the intestinal epithelium. Absorption was also said to occur in the mid-intestine. The worms' faeces contained eggs (in the case of the female), pigment granules and partly digested blood elements. The body fluid of the parasites was neutral in reaction and gave positive tests for haemoglobin and albumen. A discussion on the method of feeding of the parasites and the structure of the alimentary tract is included. W.P.R.

642—Zoologischer Anzeiger.

- a. BAUDET, E. A. R. F., 1939.—“*Necator suillus* Ackert und Payne, 1922.” 127 (7, 8), 222-223.
- b. MARKOVIĆ, A. & GARZIČIĆ, S., 1939.—“Über *Philophthalmus lacrymosus* Braun.” 127 (9/10), 267-270.

(642a) Baudet has identified as *Necator suillus* Ackert & Payne, 1922, 5 hookworms from a pig in Dutch West Indies, and emphasizes the morphological differences, especially of the male, between this species and *N. americanus*. J.J.C.B.

(642b) Marković & Garzičić compare the specimen of *Philophthalmus lacrymosus* from a human eye [described by Marković in Archiv für Ophthalmologie: see above, No. 446a] with Braun's original description of the

species and with material they recovered from sea-gulls near Belgrade. The specimen from man was peculiar in that the relatively few contained eggs showed no eyespots in the miracidia, but this may have been merely a question of age. Whilst the avian specimens caused no host-reaction, the human specimen provoked trachomatous changes in the connective tissues. B.G.P.

NON-PERIODICAL LITERATURE.

643—FAUST, E. C., 1939.—“Human helminthology: a manual for physicians, sanitarians and medical zoologists.” London, 2nd edit., 780 pp.

644—*FÖCKING, B., 1939.—“Nachweis der Echinokokkose mit Hilfe der Präzipitation und Intrakutanprobe an Schlachtschweinen und künstlich sensibilisierten Kaninchen.” Dissertation, Hannover.

645—*HELD, F., 1939.—“Ein Beitrag zur Therapie der Sommerwunden unter besonderer Berücksichtigung der Möglichkeit parasitärer Ursachen.” Inaugural-Dissertation, Hannover.

646—*HELD, H., 1939.—“Ueber parasitäre Veränderungen der Leber des Huhnes.” Inaugural-Dissertation, München.

647—*HESSEL, P. G., 1939.—“Untersuchungen über Innenparasiten von Maultieren und ihre Bekämpfung.” Inaugural-Dissertation, München.

648—HUNGERFORD, T. G., 1939.—“Diseases of poultry in New South Wales.” Sydney, 230 pp.

In a popular account of poultry diseases in New South Wales, Hungerford records on pp. 160-175 the presence of a number of helminth parasites. They are mostly common worms of wide distribution, but *Oxyspirura parvorum* is an occasional parasite as are also species of *Capillaria* and the gizzard worm: none of these are of economic importance. Gapeworm is absent from the State. P.A.C.

649—*KREMBS, J., 1939.—“Die Krankheiten des Wildes und ihre Bekämpfung.” München, 160 pp.

650—LEIPER, R. T., 1939.—“Helminth diseases in relation to the agricultural development of Africa.” Reale Accademia d'Italia. Fondazione Alessandro Volta. Atti dei Convegni (VIII). Roma, 1938, 1, 536-539.

651—*MORENAS, L., 1939.—“Entérites et colites parasitaires.” Paris.

652—*MORITZ, W., 1939.—“Ist die Trichinose der Füchse auf Trichinelleninfektion der Feldmäuse zurückzuführen?” Dissertation, Hannover.

653—*OEHLER, H., 1939.—“Vergleichende Untersuchungen über die Feststellung der Fleischtemperatur bei dem Einfrieren finniger Rinder.” Dissertation, Giessen.

* Original not available for checking or abstracting.

- 654—*PIAGGIO BLANCO, R. A. & GARCIA CAPURRO, F., 1939.—“Equino-cocosis pulmonar: estudio anatomoclínico-radiobroncográfico y terapéutico.” Buenos Aires, 403 pp.
- 655—*SCHADE, M., 1939.—“Ueber Trichinen und andere Parasiten des Rotfuchses in Kurhessen und angrenzenden Kreisen.” Inaugural-Dissertation, Hannover.
- 656—SCHNEIDER, W., 1939.—“Würmer oder Vermes. II: Fadenwürmer oder Nematoden. I: Freilebende und pflanzenparasitische Nematoden.” In: Dahl, M. & Bischoff, H., “Die Tierwelt Deutschlands und der angrenzenden Meeressteile.” 36. Teil, Jena, 260 pp.
- 657—*STICKDORN, E., 1939.—“Nachweis von Trematodeninvasionen mit Hilfe immunbiologischer Methoden unter besonderer Berücksichtigung der Präzipitation bei Leberegelbefall.” Dissertation, Hannover.
- 658—UNITED STATES DEPARTMENT OF AGRICULTURE, 1939.—“Index-catalogue of medical and veterinary zoology. Part 3. Authors: C to Czygan.” Washington, D.C., pp. 613-961.
- 659—*VANNI, V., 1939.—“Le parassitosi intestinali.” Florence, 191 pp.
- 660—*VERDUN & MANDOU, 1939.—“Précis de parasitologie humaine.” Paris, 4th edit., 646 pp.
- 661—*WISCONSIN, STATE OF. COMMITTEE ON WATER POLLUTION, 1939. “Progress report on the chemical treatment of lakes and streams with special reference to the origin and control of swimmers itch.”

The use of copper carbonate is advocated for eliminating molluscs harbouring cercariae from bathing areas, especially those where schistosome dermatitis has been acquired. [From an abstract in Public Health Engineering Abstracts, 20, p. 19.]

R.T.L.

662—Far Eastern Association of Tropical Medicine. Comptes-Rendus du Dixième Congrès, Hanoi, 1938.

- a. LARSEN, N. P., 1939.—“Prevalence of diseases on the Hawaiian sugar plantations and methods for their control. (With special attention to nutritional factors).” 1, 333-360.
- b. CHEN, P. T. & GRAY, J., 1939.—“Some sequelae of filariasis of urological interest.” 1, 887-894.
- c. BIRT, E., 1939.—“Zur Terminologie und Behandlung der Elephantiasis.” 1, 977-992.
- d. MEYER-MAY, J. & MASSIAS, C., 1939.—“Ascariodose hépatique et pulmonaire; difficulté du diagnostic.” 1, 1053-1057.

(662a) Larsen deals with helminths in workers on sugar plantations in the Hawaiian islands of Maui, Kauai and Oahu, in a brief note on page 338 of his paper. Compared with the past, the present data show a big reduction in the incidence of hookworm, due largely to effective control measures.

B.G.P.

(662b) [This paper appeared also in Journal of Urology, 1939, 42, 68-74. See Helm. Abs., Vol. VIII, No. 343a.]

* Original not available for checking or abstracting.

663—Festschrift zum 60. Geburtstag von Prof. Dr. Embrik Strand, Riga.

- a. ALLGÉN, C. A., 1939.—“Weitere freilebende Nematoden aus dem Vättern (Südschweden).” 5, 384-394.
- b. ALLGÉN, C. A., 1939.—“Über einige im reinen Schalensand der Westküste Norwegens frei lebende Nematoden.” 5, 404-425.

664—Leningrad Academy of Agricultural Sciences. Institute for Plant Protection. Collected works on nematodes of agricultural crops, edited by E. S. Kiryanova. Moscow & Leningrad, 1939, 247 pp.

- a. KIRYANOVA, E. S., 1939.—“A study on nematode diseases of plants in the U.S.S.R.” pp. 5-26. [In Russian: English summary p. 236.]
- b. USTINOV, A. A., 1939.—“The root-knot nematode *Heterodera marioni* (Cornu) in the U.S.S.R. (Results of the plant-quarantine administration work in the U.S.S.R.).” pp. 26-64. [In Russian: English summary p. 237.]
- c. LITVINOVA, N. F., 1939.—“The root-gall nematode in Kazakh S. S. R.” pp. 65-70. [In Russian: English summary p. 238.]
- d. IKHTINSKAYA, T. A. & ARKHANGELSKAYA, M. N., 1939.—“Results of investigating the root-gall nematode on *Lavandula vera* in Crimea.” pp. 71-74. [In Russian: English summary pp. 237-238.]
- e. KORAB, I. I. & BUTOVSKI, A. P., 1939.—“Results of the study and control of the sugar-beet nematode, *Heterodera schachtii* Schmidt.” pp. 75-120. [In Russian: English summary pp. 238-239.]
- f. KIRYANOVA, E. S., 1939.—“The stem nematode as a pest of agricultural crops in the U.S.S.R.” pp. 120-142. [In Russian: English summary pp. 239-240.]
- g. BELOVA, O. D., 1939.—“Results of observations and field experiments made with the stem nematode on potatoes.” pp. 142-149. [In Russian: English summary p. 240.]
- h. KOROLEVA, N. I., 1939.—“Nematodes injuring winter wheat in the northern part of the Orel region.” pp. 149-154. [In Russian: English summary pp. 240-241.]
- i. FROLOVA, M. I., 1939.—“A study of nematodes on cereals.” pp. 154-160. [In Russian: English summary p. 241.]
- j. MEYER, A. A., 1939.—“The wheat nematode, *Anguillulina tritici*, in the Crimea.” pp. 160-167. [In Russian: English summary pp. 241-242.]
- k. TULAGANOV, A. T., 1939.—“Nematode fauna in tomato plants (*Lycopersicum esculentum* Mill.) and in the soil surrounding their roots.” pp. 167-208. [In Russian: English summary p. 242.]
- l. SVESHNIKOVA, N. M., 1939.—“The nematode disease of the rubber-bearing plant *Scorzonera tau-saghyz* Lipsch. and Bossé and the problem of its control.” pp. 208-222. [In Russian: English summary pp. 242-243.]
- m. SKARBILOVICH, T. S., 1939.—“Methods and technique used in the study of plant parasitic nematodes.” pp. 223-235. [In Russian: English summary p. 243.]

(664a) In this opening article of the series, Kiryanova gives a survey of investigations on plant-parasitic nematodes which have been carried out in Russia since 1895, when Tarnani found *Heterodera schachtii* on sugar-beet in Russian Poland. She briefly summarizes the work carried out by a number of investigators on *H. schachtii*, *H. marioni*, *Anguillulina tritici*, *A. dipsaci* and *Aphelenchoides ritzema-bosi*.

T.G.

(664b) Ustinov presents the results of an extensive survey into the occurrence of the root-knot nematode, *Heterodera marioni*, in U.S.S.R. and shows that it is very widespread. In western Georgia there may be 4 to 5 generations of the parasite during the year. It was determined experimentally that one female may lay 1,800 eggs over a period of 61 days and that during summer development from invading larva to egg-laying female occupied 24 days, adult males being produced in 17 days. The results of experiments to test the resistance of certain plants are given. As soil fumigants, chloropicrin and carbon disulphide have proved more effective than sodium cyanide and formalin. The parasite can be killed within the roots of herbaceous plants by immersing them in water at 51°C. for 10 minutes. The paper ends with an appendix consisting of a host-list of 241 plants which have been found to be attacked by *H. marioni* in U.S.S.R. T.G.

(664c) Litvinova gives the results of a survey on the occurrence of the root-knot nematode, *Heterodera marioni*, in the province of Kazakhstan. It has been found at Alma-Ata and in the vicinity of Tashkent attacking vegetables, legumes and the rubber plant kok-saghys. Emphasis is laid on the fact that in the Alma-Ata district on 2 fields in which musk melons and water melons were being grown, only the latter were attacked, the roots of the musk melons remaining free from infection. T.G.

(664d) Ikhinskaya & Arkhangelskaya report on the occurrence in the Crimea of *Heterodera marioni* on the roots of the following plants grown for their essential oils, namely, iris, lavender, rosemary, tuberose, thyme and geranium. It was not found on *Andropogon citratus*, *Lippia citriodora*, Kazanlyk rose and lemon verbena. Steeping the infected roots of lavender in water at 50°C. for 10 minutes is too drastic and the plants are killed by such treatment. It is claimed that *H. marioni* is not a serious pest of lavender in the Crimea as the climate is too dry. T.G.

(664e) Korab & Butovski, as a result of a survey, have found that the greatest concentrations of the beet strain of *Heterodera schachtii* occur in those regions of U.S.S.R. where sugar-beet has been grown for the longest time. Concerning methods of control, stress is laid on the great value of rotations in which crops resistant to attack are used such as chicory, rye, maize, wheat, oats, barley and timothy grass, and the legumes, lucerne, clover, vetch, sainfoin and lupins. They claim that double, treble or quadruple dressings of artificial manures may prove profitable in helping to increase yields. Chloropicrin, though expensive for soil fumigation on a large scale, may prove of service for small heavily infected areas. T.G.

(664f) Kiryanova gives a list of cultivated plants which have been found susceptible to attack by the stem eelworm, *Anguillulina dipsaci*, in U.S.S.R. Some of these, such as millet, pyrethrum, pepper, tau-saghys, vine and lavender are previously unrecorded hosts for this parasite. The latter has been found in virgin soils in the vicinity of Orsk in the Orenburg region.

It attacks potatoes in the Ukraine and Smolensk region, pyrethrum in the Crimea and probably oats in Siberia. It is claimed that the strain attacking potatoes differs in size and dimensions from that infecting onions. [However, the worm figured in Fig. 2, p. 127, and labelled as *A. dipsaci* is, in the abstractor's opinion, a drawing not of *A. dipsaci* but of *Hexatylus viviparus*.]

T.G.

(664g) Belova states that the stem eelworm, *Anguillulina dipsaci*, is widespread as a parasite of potato tubers in the Ukraine. In general the degree of infection is low, 2% to 3%, but in some instances may be as high as 24%. Potato varieties differ in their power of resistance to attack. Of 7 varieties tested, Voltman and Parnassia proved to be the most resistant, Smyslovsky, Deodara and Maincrop were partly resistant, whilst Early Rose and Epicure were the most susceptible. Disease-free sets and the use of resistant varieties are recommended as control measures.

T.G.

(664h) Koroleva claims that in the Orel region winter wheat is destroyed not only by unfavourable weather but also by various pests including certain unnamed nematodes which occur in the leaf axils. Long moist autumns favour their development, whereas spring droughts are unfavourable to them. Injury to winter wheat causing partial destruction of plants is increased in spring time. Wheat sown in early August is particularly affected by the pest.

T.G.

(664i) Frolova has carried out observations on the destruction of wheat at the Stony Steppe Experiment Station and at the Ternovsky Sugar-Beet State farm of the Voronezh region. She claims that the plants are not destroyed by unfavourable weather alone but to a considerable extent by the depredations of nematodes which have been found in large numbers in affected plants. The plants attacked are winter wheat, rye, spring wheat, oats and barley. The following nematode species have been found in diseased plants: *Anguillulina dipsaci*, *Paraphelenchus pseudoparietinus*, *Cephalobus elongatus* and *Aphelenchus avenae*.

T.G.

(664j) Meyer reports on the occurrence of the "cockle" nematode, *Anguillulina tritici*, in winter wheat grown in the Crimea in 1929. Out of 2,215 samples of wheat examined, 250 were found to be infected, and of these 230 samples came from the vicinity of Eupatoria; the other 20 came from other regions of the Crimea. "Cockles" were not found in the wheat varieties Novokrymka and Cooperatorka.

T.G.

(664k) Tulaganov reports on nematodes found within tomato roots and in the surrounding soils and lists 50 species belonging to 23 genera. Of these the following are considered to be injurious species, namely, *Heterodera marioni*, *Anguillulina pratensis* and *Aphelenchoides kühni*. Brief descriptions of several of the species encountered are given accompanied by line drawings taken for the most part from the works of other authors.

T.G.

(664 l) Sveshnikova reports on the nematodes found attacking the roots of the rubber plant, tau-saghys (*Scorzonera tau-saghys*). Examples of *Anguillulina multicincta* were found in many cases with the anterior region of the body penetrating the root tissues. A 63% infection was found in roots of seedlings under field conditions. Under experimental conditions an 82% infection was obtained, the nematodes entering roots on the 4th day and destruction of the plants resulting on the 12th to the 15th day. The author refers to the work of Kalinenko on the destructive action of various bacteria, isolated from decaying roots, which had gained entry through the action of such primary parasites as *Anguillulina pratensis* and *A. multicincta*. It has been established that both these species lay their eggs in the roots of tau-saghys. The nematodes are more abundant in irrigated than in non-irrigated soils. Application of heavy dressings of lime and calcium cyanamide did not reduce the number of nematodes in the soil nor did fumigation with chloropicrin, probably owing to the compactness of the soils in Middle Asia. T.G.

(664 m) Skarbilovich sets out the chief differential characters of the principal genera of plant-parasitic nematodes and gives details of technical methods employed in their collection and microscopic examination. Particular attention is devoted to methods of sampling. Report is made on some unsuccessful attempts to cultivate the two parasitic species, *Anguillulina multicincta* and *A. pratensis* on artificial agar media. T.G.

665—World's Poultry Congress (7th), Cleveland, Ohio, 1939. Proceedings.

- a. SHILLINGER, J. E., 1939.—"Relationship of diseases common to game birds and domestic poultry." pp. 241-243.
- b. ACKERT, J. E., 1939.—"Factors in the resistance of chickens to parasitic worms." pp. 265-267.
- c. WEHR, E. E., 1939.—"The gapeworm as a menace to poultry production." pp. 267-270.
- d. WADOWSKI, S., 1939.—"Some observations on intestinal worms of Polish poultry." pp. 270-271.

(665a) Shillinger points out some of the dangers of rearing domestic poultry and game birds in close proximity as this frequently results in heavy losses among the game birds from diseases usually associated with domestic fowls. Game birds reared in captivity do not seem to have the same degree of resistance to pollution as do chickens. Among the helminths most usually concerned in the production of disease among such stock are gapeworm, ascarids, and several cestodes, most particularly species of *Raillietina*. P.A.C.

(665b) Ackert summarizes some of his recent work dealing with the resistance of chickens to parasitism with *Ascaridia lineata*. The composition of the diet can play an important part in building up resistance. Age is

another factor, and certain breeds and strains of birds show more resistance than do some others. P.A.C.

(665c) In reviewing the problem of gapeworm among domestic stock Wehr discusses the frequency of the parasite among various species and the various lesions and symptoms that may result from their presence. Guinea-fowls and turkeys may carry the parasite throughout life and no immunity seems to develop as the result of infection. P.A.C.

(665d) As a result of examinations of about 400 viscera of various species of poultry living in Poland, chickens were found to be infected with 12 species of helminths; 5 species were recovered from geese; 7 species were obtained from ducks. Turkeys harboured 2 species while a few pigeons had a single species. P.A.C.

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NOTE.

In all indexes the reference is to the serial numbers and not to the pages. In the Indexes of Authors and Subjects numbers in **bold type** indicate abstracts and numbers in Roman type refer to title-only entries.

In the Index of Authors, joint-authors are separately listed. Thus, "Jones, A. & Brown, B." would appear also as "Brown, B. with Jones, A."

In the Index of Subjects, alphabetization is under the first word (e.g., "*Acer* sp." before "*Acerina* sp."). Under the generic name of a helminth the following order is observed: papers on the genus as such; papers on undefined species; papers on new and defined species, e.g.,

- Capillaria*
- spp.
- *aerophila*
- *amarali* n. sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under the name of the parasite or disease.

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